Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition Test oil : 01.12.97 : ISO 4113

Combination No. : 0 402 648 974

Injection pump

Pump designation : PE8P12OA32OLS7915 EP type number : 0 412 628 929

6overnor

Governer design. : RQ300/1150PA1374 Governer no. : 0 421 801 833

Cust. part No. :

Customer—spec. information Customer : DHI Motor : DV15TC Power KW : 272.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.20
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm: 16.00 Tolerance num: + 1.50

Firing order : 8-7-2-6-3 :-5-4-1

Phasing : 0-45-90-135-180 : -225-270-315

: +- 0.50

Tolerance Check

tolerance *NH : + 0.75

Start of delivery mark

Tolerance : + 0.50

Check

tolerance 'NW : +- 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm : 14.35 Tolerance mm : + 0.05

A01

Del. quantity cm3/1000 strokes	: 220.5	Tolerance man : + 0.10
Tolerance		Rated speed rpm : 450 guide sleeve
cm3/1000 strokes	: + 1.0	travel mm : 6.00 Tolerance mm : + 0.10
Check tolerance cm3/1000s.	: + 4.0	Rated speed rpm : 1370
Spreed		guide sleeve travel mm : 11.50
Talamana	Ţ	Tolerance mma : +- 0.50
Tolerance cm3/1000 strokes	: 7.0	CHINE CLEENE POSTITION
Ch 1 A - 1		GUIDE SLEEVE POSITION
Check tolerance cm3/1000s.	: 10.0	annhard Javan
		control lever
	†	position degree : 109
	+	Rated speed rpm : 1247
Rated speed rpm	: 300	
	1	Rack travel in mm : 12.60
Rack travel in mm	5.80	Tolerance mm : +- 1.30
Tolerance mm		100010011111111111111111111111111111111
Del. quantity	I	
cm3/1000 strokes	· 18 n	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	. 10.0	FULL LUAD DELIVERY AT FULL EOAD STOP
	T	D
cm3/1000 strokes	: + 3.0	Rated speed rpm : 1150
Check tolerance	†	Aneroid pressure
cm3/1030s.	: + 6.0 +	ĥPa : −
Spreed	†	Del. quantity
Tolerance	+	cm3/1000 strokes : 220.5
cm3/1000 strokes	: 5.0	Tolerance
Check tolerance	+	cm3/1000 strokes : +- 1.0
cm3/1000s.	: 8.0 +	Check tolerance
	+	cm3/1000s. : + 4.0
	+	Spreed
(B) SETTING OF IN	JECTION PUMP	Tolerance
WITH GOVERNOR		cm3/1000 strokes : 7.0
	1	Check tolerance
		cm3/1000s. : 10.0
GUIDE SLEEVE TRAVE	FI I	. 10.0
TOTAL SEEDE THAT	<u> </u>	
Rated speed rpm	: 1211 I	
guide sleeve	I	CONTROL LEVER
travel ma	: 6.36 [↓]	CONTROL LEVER
Tolerance man	: + 0.15	control lever
rocci arice man	I	position degree : 34.0
Rated speed rpm	: 300	
	. 500	tolerance degree : +- 4.0
guide sleeve travel mm	. 271	
	2.31	control lever
Tolerance was	: ← 0.20 +	position degree : 95.0
0.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	1450	tolerance degree : +- 4.0
Rated speed rpm	: 1150	DATE: 40-0-1
guide sleeve	†	RATED SPEED
travel mm	: 6.00	rack travel mm : 13.35
Tolerance mm	: + 0.10 +	Rated speed rpm : 1202
	+	Tolerance 1/min : + 8
Rated speed rpm	: 378	
guide sleeve	+	rack travel mm : 4.00
travel mm	: 5.00	Rated speed rpm : 1285
	•	

Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm LOW IDLE control lever position degree tolerance degree	: 0.50 : ← 0.50 : 1350	rack travel mma Tolerance mma MEASUREMENT Rated speed rpm Pressure hPa rack travel mma Tolerance mma Pressure hPa rack travel mma Tolerance mma	: ← 0.20 : 500 : 650 : 12.30 : ← 0.20 : 250
control lever position degree tolerance degree Setting point w/o Rated speed rpm	: 14.0 : + 4.0	Start interlock Rated speed rpm Rated speed rpm Check speed 1/min	: < 240
CRT mm min. Testing: Rated speed rpm rack travel mm Tolerance mm	: 5.80	FUEL DELIVERY CHA	: -
rack travel mm Rated speed rea Tolerance 1/min	: 2.00 : 372 : + 20	Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 14.35 : + 0.05	Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 500 : 137.0
ANEROID/ALTITUDE COMPENSATOR TEST		- Check tolerance - cm3/1000s. -	: +- 4.0
SETTING	- -	STARTING FUEL DEL	IVERY
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 14.35 : + 0.05	Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: + 10.0
Rated speed rpm Pressure hPa	: 500	- cm3/1000s.	: +- 14.0

LOW IDLE

Rated speed rpm	:		300
Rack travel in man Tolerance man Del. quantity	-	+	5.80 0.10
cm3/1000 strokes Tolerance	:		18.0
cm3/1000 strokes Check tolerance	:	+	3.0
cm3/1000s. Spreed	:	+-	6.0
Tolerance cm3/1000 strokes Check tolerance	:		5.0
cm3/1000s.	:		8.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 28.11.97 Test oil : ISO 4113

Combination No. : 0 402 666 804

Injection pump

Pump designation: PE6P12OA32O/3LS7893

EP type number : 0 412 626 952

Governor

Governer design. : RSV600...1050P0A636

6overner no. : 0 421 833 544

Cust. part No. : 0270743902

Customer—spec. information Customer : MB-NFZ Motor : 0M 447 LA Power KW : 285.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : ← 2.0

Overflow valve : 2 417 413 077

Inlet press. bar : 1.5
Tolerance bar : + 0.1

Overflow quantity

min. L/h : 120 Tolerance L/h : + 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.75
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Reck travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 6-3-5-2-4-

: 1

Phasing : 0-45-120-165-240

: -285

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 1075

Rack travel in mm : 13.70 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 251.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance	Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 251.0 Tolerance cm3/1009 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0
cm3/1000s. : 9.0	CONTROL LEVER
Rated speed rpm : 600 Rack travel in mm : 4.10 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 17.0	control lever position degree : 86.0 tolerance degree : + 4.0 RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1115
Tolerance + 3.0 +	Tolerance 1/min : ← 5
Check tolerance cm3/1000s. : + 6.0 Spreed	
Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0	LOW IDLE control lever position degree : 71.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100
GUIDE SLEEVE POSITION	CRT mm min. : > 19.50
control lever	Testing:
position degree : -3 Rated speed rpm : 800	Rated speed rpm : 600 rack travel mm : 4.10 Tolerance mm : + 0.10
Rack travel in mm: 0.50 Tolerance mm: + 0.20	rack travel man : 2.00 Rated speed rpm : 630
governor spring + pre-tension +	Tolerance 1/min : + 30
click setting x : 1.50	SET IDLE AUXILIARY SPRING
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00
Rated speed rpm : 1075	TORQUE CONTROL Rated speed rpm : 1075

rack travel ma : 13.70 Tolerance ma : + 0.05Rated speed rpm 800 rack travel mm : 14.75 : **←** 0.10 Tolerance mm Rated speed rom : 1000 rack travel mm : 14.35 : **←** 0.10 Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING 500 Rated speed rpm : Pressure hPa 1200 rack travel mm 14.75 Tolerance mm : **←** 0.10 Rated speed rpm 500 Pressure hPa 8,50 rack travel mm Tolerance mm : **←** 0.20 MEASUREMENT Rated speed rpm : 500 Pressure hPa 250 reck travel mm : 8.90 : + 0.05 Tolerance mm rressure hPa Tolerance mm Pressure hPa 400 : ← 0.20 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 1200 Rated speed rpm 800 Del. quantity cm3/1000 strokes : 291.0 Tolerance cm3/1000 strokes : \leftarrow 3.0 Check tolerance : + 6.0 cm3/1000s. Aneroid pressure hPa Rated speed rpm 500 Del. quantity

Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 15.75 Tolerance mm : + 0.25 Del. quantity cm3/1000 strokes : 270.0 Tolerance cm3/1000 strokes : + 15.0 Check tolerance cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm : 600 Rack travel in mm: 4.10 : +- 0.10 Toterance ma Del. quantity cm3/1000 strokes : 17.0 Tolerance cm3/1000 strokes : \leftarrow 3.0 Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

End of test specification sneet

cm3/1000 strokes :

155.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 01.12.97 : ISO 4113

Combination No. : 0 402 678 827

Injection pump

Pump designation : PE8P120A320LS7886 EP type number : 0 412 628 903

Governor

Governer design. : RSV550...850P0A574

: -1

Governer no. : D 421 833 476

Cust, part No. : 0260741102

Customer-spec. information Customer : MB-NFZ Motor : OM442LA Power KW : 329.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : + 2.0 Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : : +- 0.1 Tolerance bar

Overflow quantity

: 120 min. L/h Tolerance l/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

bar 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter: 8.0

x inside diameter: 3.0

x length am : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 5.05 Tolerance mm : + 0.05

Check

tolerance an : + 0.10

Rank travel in mm: 20.50 Tolerance mn: \leftarrow 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180

: -225-270-315

: + 0.50

Tolerance Check

: + 0.75tolerance *NW

Start of delivery mark

Tolerance : + 0.10

Check

tolerance *NW : \leftarrow 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 830

	T
Rack travel in mm : 15.40 Tolerance mm : + 0.05	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes : 264.0	Rated speed rpm : 830 Aneroid pressure hPa : 1200
Tolerance : + 1.0	<pre>- Del. quantity - cm3/1000 strokes : 264.0 - Tolerance - cm3/1000 strokes : + 1.0</pre>
Check tolerance cm3/1000s. : + 4.0	- cm3/1000 strokes : + 1.0 - Check tolerance - cm3/1000s. : + 4.0 - Spreed
Spreed	Tolerance cm3/1000 strokes : 6.0
Tolerance cm3/1000 strokes : 6.0	Check tolerance cm3/1000s. : 9.0
Check tolerance cm3/1000s. : 9.0	
	CONTROL LEVER
Rated speed rpm : 550	control lever position degree : 80.0 tolerance degree : + 4.0
Rack travel in mm : 3.90 Tolerance mm : + 0.10	total wife degree
Del. quantity cm3/1000 strokes : 19.0	ASSEMBLY GOVERNOR SETTING
Tolerance cm3/1000 strokes : +- 3.0 Check tolerance	Rated speed rpm : 870 rack travel mm : 14.40
cm3/1000s. : +- 6.0 Spreed	Rated speed rpm : 920 Tolerance 1/min : + 4
Tolerance cm3/1000 strokes : 6.0 Check tolerance	rack travel mm : 4.00
cm3/1000s. : 10.0	rack travel ma : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1050
(B) SETTING OF INJECTION PUMP	Paradament and 274
WITH GOVERNOR	Rated speed rpm : 871 rack travel mm : 14.40
GUIDE SLEEVE POSITION	Rated speed rpm : 921 Tolerance 1/min : + 4 rack travel mm : 4.00
control lever position degree : - 3 Rated speed rpm : 800	rack travel mm : 0.85 Tolerance mm : + 0.55 Rated speed rpm : 1050
Rack travel in mm : 0.50 Tolerance mm : + 0.20	Rated speed rpm : 872
governor spring pre-tension	rack travel mm : 14.40 Rated speed rpm : 922
click setting x : 2.00	Tolerance 1/min : + 4 rack travel mm : 4.00

rack travel man Tolerance man Rated speed rpm	: ← 0.55
Rated speed rpm	: 873
rack travel mm	: 14.40
Rated speed rpm	: 923
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mma	: + 0.55
Rated speed rpm	: 1050
Rated speed rpm	: 874
rack travel mam	: 14.40
Rated speed rpm	: 924
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: + 0.55
Rated speed rpm	: 1050
Rated speed rpm	: 875
rack travel mm	: 14.40
Rated speed rpm	: 925
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm Tolerance mm Rated speed rpm	
LOW IDLE	
control lever position degree tolerance degree	: 66.0 : + 4.0
Setting point w/ou	nt bumper spring
Rated speed rpm	: 100
CRT mm min.	: > 19.00
Testing:	
Rated speed rpm	: 550
rack travel mm	: 3.90
Tolerance mm	: ← 0.10

rack travel mm Rated speed rpm Tolerance 1/min	: ← 30
SET IDLE AUXILIAN	RY SPRING : 2.00
THE STATE STATE	. 2.00
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 830 : 15.40 : + 0.05
Rated speed rpm rack travel man Tolerance man	: 600 : 15.40 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 15.40 : + 0.10
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 10.30 : + 0.20
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 500 : 12.35 : ← 0.20
Pressure hPa rack travel mm Tolerance mm	: 710 : 14.30 : ← 0.20
FUEL DELIVERY CHARACTERISTICS	
Aneroid pressure hPa Rated speed rpm Del. quantity	: 1200 : 600
cm3/1000 strokes Tolerance	: 283.0
cm3/1000 strokes	: + 3.0

Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance ca3/1000s. 12.0 Aneroid pressure hPa Rated speed rom 500 Del. quantity cm3/1000 strokes : 174.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0 STARTING FUEL DELIVERY Rated speed rpm 100 Del. quantity cm3/1000 strokes : 275.0 Tolerance cm3/1000 strokes : + 15.0 Check tolerance cm3/1000s. : + 19.0 LOW IDLE Rated speed rpm 550 Rack travel in mm : 3.90 Tolerance mm 0.10 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 01.12.97 Test oil : ISO 4113

Combination No. : 0 402 678 835

Injection pump

Pump designation : PE8P120A320LS7844 EP type number : 0 412 628 860

Governor

Governer design. : RSV350...1050P0A673

Governer no. : 0 421 833 590

Cust. part No. : 0270746802

Customer-spec. information Customer : MB-NFZ Hotor : OM442LA Power KW : 370.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

: 1 417 413 047 Overflow valve

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 140 Tolerance l/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 Tolerance bar :+ 1.5 Test lines : 1 680 750 075

Outside diameter: 8.0

x inside diameter : x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm 5.05 : + 0.05 Tolerance mm

Check

tolerance ma : ← 0.10

Rack travel in mm: 20.50 Tolerance mm : + 0.50

Firing order : 8-7-2-6-3 :-5-4-1

Phasing : C-45-90-135-180

: -225-270-315 : + 0.50

Tolerance Check

tolerance *NW : + 0.75

Start of delivery mark

: +- 0.10 Tolerance

Check

tolerance *NW : +- 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1030

Rack travel in mm: 15.30 Tolerance mn: $\leftarrow 0.05$

+	Aneroid pressure
Del. quantity	hPa : 1200
cm3/1000 strokes : 272.0	Del. quantity
Tolerance	cm3/f000 strokes : 272.0
cn3/1000 strokes : + 1.0	Tolerance
CIBS TOOD SETOKES . V- 1.0	cm3/1000 strokes : + 1.0 Check tolerance
Check tolerance	cm3/1000s. ; +- 4.0
cm3/1000s. : + 4.0	Spreed
	Tolerance
Spreed	cm3/1000 strokes : 5.0
+	Check tolerance
Tolerance + cm3/1000 strokes : 5.0 +	cm3/1000s. : 9.0
tms/1000 strokes : 5.0	
Check tolerance	
cm3/1000s. 9.0	CONTROL LEVER
+	control lever
Poted and any 250	position degree : 96.0
Rated speed rom : 350	tolerance degree : +- 4.0
Rack travel in mm: 5.00	RATED SPEED
Tolerance mm : + 0.10	rack travel mm : 14.30
Del. quantity	Rated speed rpm : 1075
cm3/1000 strokes : 19.0	Tolerance 1/min : + 5
Toterance	
cm3/1000 strokes : + 3.0 +	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1150
cm3/1000s. : + 6.0	Tolerance 1/min : +- 5
Tolerance	rack travel mm : 0.85
cia3/1000 strokes : 8.0	rack travel mm : 0.85 Tolerance mm : → 0.55
Check tolerance	Rated speed rpm : 1400
cm3/1000s. : 12.0	nated opeca (pii 1 1400
+	
(7)	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
WITH GOVERNOR	TOM THE
Ţ	
+	control lever
GUIDE SLEEVE POSITION +	position degree : 75.0
+	tolerance degree : +- 4.0
control lever	Cotting point work homes and
position degree : -3	Setting point w/out bumper spring
Rated speed rpm : 800	Rated speed rpm : 100
	The special sp
Rack travel in mm: 0.50	CRT mm min. : > 19.50
Tolerance mm : + 0.20	
+	Testing:
governor spring	Dated aread was 200
pre-tension + click setting x : 3.75 +	Rated speed rpm : 350 rack travel mm : 5.00
Tion secting A . J./J	Tolerance mm : + 0.10
I	TOCCI GITOC INN U. IU
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 2.00
+	Rated speed rpm : 395
Rated speed rpm : 1050	Tolerance 1/min : ← 30

SET IDLE AUXILIARY SPRING

2.00 rack travel mm :

TORQUE CONTROL

1030 Rated speed rpm • rack travel am 15.30 Tolerance mm : **←** 0.05

Rated speed rom 800 rack travel mm 15.30 Tolerance mm : +- 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 500 Pressure hPa

MEASUREMENT

Pressure hPa 180 rack travel mm 0.40 Tolerance ma : **←** 0.05

800 Pressure hPa rack travel ma 5.00 : + 0.15Tolerance men

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1200 Rated speed rom 3C0 Del. quantity

cm3/1000 strokes : 274.0

Tolerance cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000s. : + 6.0 Spreed

Tolerance

cm3/1000 strokes : 8.0 Check tolerance

cm3/1000s.12.0

Aneroid pressure

hPa Rated speed rpm 500 Del. quantity

cm3/1000 strokes : 140.0

Tolerance

cm3/1000 strokes : +-1.0

Check tolerance

cm3/1000s. 4.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 270.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : + 19.0

LOW IDLE

Rated speed rom : 350

Rack travel in mm : 5.00 Tolerance mm 0.10

Del. quantity cm3/1000 strokes :

19.0 Tolerance

cm3/1000 strokes : +-3.0 Check tolerance

cm3/1000s.

: +-6.0 Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) #400/...

Edition

: 28, 11, 97 Test oil : ISO 4113

Combination No. : 0 402 678 836

Injection pump

Pump designation : PE8P12OA32OLS7844 EP type number : 0 412 628 860

Governor

Governer design. : RSV550...1050P0A672

Governer no. : 0 421 833 591

Cust. part No. : 0270746402

Customer-spec. information Customer : MB-NFZ Motor : OM442L/ : OM442LA Power KW : 370.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C + 2.0 Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Overflow quantity

min. L/h min. L/h : 225 Tolerance L/h : + 20.0 225

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter: 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.05
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 20.00 Tolerance n_0 : \leftarrow 1.00

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180

: -225-270-315 Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery mark

Tolerance : + 0.10

Check

tolerance *NW : **←** 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1050

1	
Rack travel in mm: 15.60	
Tolerance mm : ← 0.05	FULL LOAD DELIVERY AT FULL LOAD STOP
+	
Del. quantity cm3/1000 strokes : 270.0	Rated speed rpm : 1050
cm3/1000 strokes : 270.0	Aneroid pressure hPa : 1200
Tolerance	Del. quantity
cm3/1000 strokes : + 1.0	cm3/1000 strokes : 270.0
+	Tolerance
Check tolerance cm3/1000s. : + 4.0	cm3/1000 strokes : + 1.0
cm3/1000s. : \leftarrow 4.0	Check tolerance : +- 4.0
Spreed	Spreed 4.0
1	Tolerance
Tolerance	cm3/1000 strokes : 5.0
cm3/1000 strokes : 5.0	Check tolerance
Check tolerance	cm3/1000s. : 9.0
cm3/1000s. : 9.0	
+	CONTROL LEVER
Rated speed rom : 550	and the Lauren
Rated speed rpm : 550	control lever position degree : 88.0
Rack travel in mm: 4.00	tolerance degree : +- 4.0
Tolerance mu : + 0.10	
Del. quantity	
cm3/1000 strokes : 19.0	ASSEMBLY GOVERNOR SETTING
Tolerance + 3.0 +	Rated speed rpm : 1070
Check tolerance	Tolerance 1/min : +- 1
cm3/1000s. : + 6.0	rack travel mm : 14.60
Spreed	
Tolerance + cm3/1000 strokes : 8.0	Rated speed rpm : 1110
Check tolerance	Tolerance 1/min : + 4 rack travel mm : 4.00
cm3/160US. : 12.0	1 000 %1 00 4 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
}	rack travel mm : 0.85
(D) OFFERING OF YAMPOTTON DUMP	Tolerance mm : + 0.55
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1200
MILL DO A FLUIDIN	
+	Rated speed rpm : 1071
	Tolerance 1/min : +- 1
GUIDE SLEEVE POSITION	rack travel mm : 14.60
Ţ	Reted speed rpm : 1111
control lever	Tolerance 1/min : + 4
position degree : -3	rack travel mm : 4.00
Rated speed rpm : 800	
Pack thought in man to 0.50	rack travel mm : 0.85
Rack travel in mm: 0.50 + Tolerance mm: + 0.20 +	Tolerance mm : + 0.55 Rated speed rpm : 1200
Total Gride Half	nated speed (pm . 1200
governor spring	
pre-tension +	Rated speed rpm : 1072
click setting x : 2.00	Tolerance 1/min : + 1
İ	rack travel mm : 14.60

Rated speed rpm		+ Testing:
Tolerance 1/min rack travel mm		Rated speed rpm : 550
I GEN CI GACT HAN	. 4.00	rack travel mm : 4.00
rack travel mm	• 0.85	+ rack travel mm : 4.00 + Tolerance mm : +- 0.10
Tolerance mm	: + 0.55	Total artice many
Rated speed rpm		rack travel mm : 2.00
	, , , , , , , , , , , , , , , , , , , ,	Rated speed rpm : 570
		+ Tolerance 1/min : +- 30
Rated speed rpm	: 1073	30
Tolerance 1/min		+ SET IDLE AUXILIARY SPRING
rack travel mm		
		+ rack travel mm : 2.00
Rated speed rpm	: 1113	+
Tolerance 1/min	: - 4	
rack travel mm	: 4.00	+ TORQUE CONTROL
	•	+ Rated speed rpm : 1050
rack travel mm		rack travel mm : 15.60
Toterance mm Rated speed rpm	: + 0.55	+ Tolerance mma : ← 0.05
Rated speed rpm	: 1200	+
		- Rated speed rpm : 660 - rack travel mm : 15.60
	4001	rack travel mm : 15.60 Tolerance mm : + 0.10
Raited speed rpm	: 1074	Tolerance mm : + 0.10
Tolerance 1/min		†
rack travel mm	: 14.60	
5.4 1	4441	ANEROID/ALTITUDE
Rated speed rom		+ COMPENSATOR TEST
Tolerance 1/min		†
rack travel mm	: 4.00	
nools denough man	. 0.05	+ SETTING
rack travel mm Tolerance mm	; U,05	T But ad anough non (50
Rated speed rpm	: 1200	Rated speed rpms : 450 Pressure hPa : 1200
varied sheed this	: 1200	Pressure hPa : 1200 rack travel mm : 15.60
		+ Tolerance mm : + 0.10
Rated speed rpm	: 1175	T roterance min : 0.10
Tolerance 1/min		- Rated speed rpm : 450
rack travel mm		+ Pressure hPa : -
	. 14.00	+ rack travel mm : 9.75
Rated speed rpm	: 1115	Tolerance mm : + 0.20
Tolerance 1/min		
rack travel mm		+ MEASUREMENT
		+
rack travel mm	: 0.85	+ Rated speed rpm : 450
Tolerance mm	: ← 0.55	+
		Pressure hPa : 600
		rack travel mm : 12.20
LOW IDLE		† Tolerance mm : +- 0.15
		+
		+ Pressure hPa : 800
control lever	70.0	rack travel mm : 14.10 Tolerance mm : + 0.20
position degree		+ Tolerance mm : + 0.20
tolerance degree	: +- 4.0	
Codding maded/-	nut branch austra	†
secting point W/C	out bumper spring	ELIEL DEL TUEDY CHADACTECTOTO
Rated speed rpm	: 100	+ FUEL DELIVERY CHARACTERISTICS
varien shaad Libra	. 100	<u> </u>
CRT mm min.	• > 19 50	Aneroid pressure
uni सिंह स्ट्राइट स	17.00	+ hPa : 1200
		, iii d . 1200

Rated speed rpm : 600 Del. quantity cm3/1000 strokes : 287.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : **←** 6.0 Aneroid pressure hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes : 162.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 STARTING FUEL DELIVERY Rated speed rpm 100 Del. quantity cm3/1000 strokes : 260.0 Tolerance cm3/1000 strokes : + 15.0Check tolerance cm3/1000S. : +- 19.0 LOW IDLE Rated speed rom 550 Rack travel in mm: 4.00 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 28,11,97 : ISO 4113

Combination No. : 0 402 678 837

Injection pump

Pump designation : PE8P12OA32ULS7911 EP type number : 0 412 628 926

Governor

Governer design. : RSV550...1050P0A679

Governer no.

: 0 421 833 598

Cust. part No. : 027 074 6502

Customer-spec. information

: MB-NFZ Customer

: OM442LA, Euro Motor

Power KN : 320.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 110 Toterance L/h : +- 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : - 1.0

: 5.25 Prestroke mm Tolerance mm : +~ 0.05

Check

: ← 0.10 tolerance nm

Rack travel in mm : 20.50 Tolerance mm : **←** 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180 : -225--270-315

: + 0.50Tolerance

Check

tolerance *NW : **←** 0.75

Start of delivery mark

Tolerance : **←** 0.10

Check

tolerance °NW : +- 0.75

Barrel no. 8 :

BASIC SETTING

1050 Rated speed rpm :

1	
Rack travel in mm: 14.40	
Tolerance am : + 0.05	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes : 227.0	Rated speed rpm : 1050 Aneroid pressure
Tolerance cm3/1000 strokes : + 1.0	hPa : 1100 Del. quantity cm3/1000 strokes : 227.0
Check tolerance cm3/1000S. : + 4.0	Tolerance cm3/1000 strokes : + 1.0 Check tolerance
Spreed	cm3/1000s. : + 4.0 Spreed Tolerance
Tolerance cm3/1000 strokes : 5.0	cm3/1000 strokes : 5.0 Check tolerance
Check tolerance cm3/1000s. : 9.0	cm3/1000s. ; 9.0
	CONTROL LEVER
Rated speed rpm : 550	control lever position degree : 87.0
Rack travel in mm: 4.20 Tolerance mm: : + 0.10 Del. quantity	tolerance degree : + 4.0
cm3/1000 strokes : 19.0 Tolerance	ASSEMBLY GOVERNOR SETTING
cm3/1900 strokes : - 3.0	Rated speed rpm : 1085
Check tolerance cm3/1000s. : + 6.0 + 5preed	Tolerance 1/min : + 1 rack travel mm : 13.50
Tolerance	Rated speed rpm : 1125
cm3/1000 strokes : 8.0	Tolerance 1/min : + 4
Check tolerance : 12.0	rack travel mma : 4.00
cm3/1000s. : 12.0	rack travel mm : 0.85
+	Tolerance mm : + 0.55
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1300
Ī	Rated speed rpm : 1087
	Tolerance 1/min : + 1
GUIDE SLEEVE POSITION	rack travel mm : 13.50
control lever	Rated speed rpm : 1127
position degree : -3	Tolerance 1/min : + 4 rack travel mm : 4.00
Rated speed rpm : 800	rack travet lan : 4.00
+	rack travel mm : 0.85
Rack travel in mm: 0.50	Tolerance mm : + 0.55
Tolerance mm : + 0.20	Rated speed rpm : 1300
governor spring + pre-tension +	Rated speed rpm : 1089
click setting x : 2.00	Tolerance 1/min : +- 1
	rack travel mm : 13.50
·	

Rated speed rpm	: 1129
Tolerance 1/min	: +- 4
rack travel mm	: 4.00
rack travel man	: 0.85
Tolerance man	: +- 0.55
Rated speed rpm	: 1300
Rated speed rpm	: 1091
Tolerance 1/min	: ← 1
rack travel mm	: 13.50
Rated speed rpm	: 1131
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: + 0.55
Rated speed гра	: 1300
Rated speed rpm	: 1093
Tolerance 1/min	: + 1
rack travel mm	: 13.50
Rated speed rpm	: 1133
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm.	: 0.85
Tolerance mm	: +- 0.55
Rated speed rpm	: 1300
Rated speed rpm	: 1095
Tolerance 1/min	: ← 1
rack travel mm	: 13.50
Rated speed rpm	: 1135
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: ← 0.55
Rated speed rpm	: 1300
LOW IDLE	
control lever position degree tolerance degree	: 71.0 : + 4.0
Testing:	1

rack travel mm Rated speed rpm Tolerance 1/min	: 580
SET IDLE AUXILIAR	
rack travel ma	: 2.00
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1050 : 14.40 : ← 0.05
Rated speed rpm Tolerance mm	: 600 : ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1100 : 15.00 : ← 0.10
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 450 : - : 11.10 : + 0.20
MEASUREMENT	
Rated speed rpm	: 450
Pressure hPa rack travel mm Tolerance mm	: 750 : 14.30 : ← 0.20
Pressure hPa rack travel mma Tolerance mm	: 550 : 12.50 : ← 0.15
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure	• 1100

Aneroid pressure		
hPa	:	1100
Rated speed rpm	:	600
Del. quantity		
cm3/1000 strokes	:	248.0
Tolerance		
cm3/1000 strokes	: 4	- 2.0

Rated speed rpm : 550 rack travel mm : 4.20 Tolerance mm : + 0.10

Check tolerance : **←** 5.0 cm3/1000s. Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000S. 12.0 Aneroid pressure hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes : 166.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 5.0 : +-STARTING FUEL DELIVERY Rated speed rpm : 100 Del. quantity cm3/1000 strokes : 250.0 Tolerance cm3/1000 strokes : + 15.0Check tolerance cm3/1000s. : + 19.0 LOW IDLE Rated speed rpm : 550 Rack travel in mm : 4.20 Tolerance ma 0.10 Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +--6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm:3/1000S. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 28.11.97 : ISO 4113 Test oil

Combination No. : 0 402 678 839

Injection pump

Pump designation : PE8P120A320LS7912 EP type number : 0 412 628 927

Governor

Governer design. : RSV550...1050F0A681

Governer no. : 0 421 833 600

Cust. part No. : 028 074 2802

Customer-spec. information Customer : MB-NFZ

Motor : OM402LA, Euro Power KW

280.0

TEST BENCH REQUIREMENTS

Inlat line : 3.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

min. l/h : 120 Tolerance l/h : + 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.55 Tolerance mm : + 0.05

Check

: **←** 0.10 tolerance mm

Rack travel in mm : 20.50 Tolerance mm: $\leftarrow 0.50$

Firing order : 8-7-2-6-3 : - 5- 4- 1

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery mark

Tolerance : +- 0.10

Check

tolerance *NW : **←** 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1030

Rack travel in mm Tolerance mm	: 13.70 : ← 0.05	Aneroid pressure hPa Del. quantity	: 1000
Del. quantity cm3/1000 strokes	: 208.0	cm3/1000 strokes Tolerance cm3/1000 strokes	
Tolerance		Check tolerance cm3/1000s.	: + 1.0 : + 4.0
cm3/1000 strokes	: + 1.0	Spreed Tolerance	4.0
Check tolerance cm3/1000s.	: + 4.0	cm3/1000 strokes Check tolerance	
Spreed	<u> </u>	cm3/1000s.	: 9.0
Tolerance cm3/1000 strokes	: 5.0	CONTROL LEVER	
Check tolerance cm3/1000s.	: 9.0	control lever position degree	: 88.0
		tolerance degree	: +- 4.0
Rated speed rpm	: 550	ASSEMBLY GOVERNOR	SETTING
Rack travel in mm	: 4.10	Rated speed rpm	: 1070
Tolerance mm	: ← 0.10 +	Tolerance 1/min	: +- 1
Del. quantity	†	rack travel mm	: 12.70
cm3/1000 strokes	: 18.0	Data damas dama	- 4440
Tolerance cm3/1000 strokes	: ← 3.0 I	Rated speed rpm Tolerance 1/min	
Check tolerance	· - 5.0	rack travel min	: + 4 : 4.00
cm3/1000s.	: + 6.0 I	I CICK CLEASE CHINA	. 4.50
Spreed	+	rack travel mm	: 0.85
Tolerance	}	Tolerance mm	: ← 0.55
cm3/1000 strokes	: 8.0	Rated speed rpm	: 1300
Check tolerance	. 12.0		
cm3/1000s.	: 12.0	Debod aread non	: 1071
	I	Rated speed rpm Tolerance 1/min	
(B) SETTING OF IN	JECTION PUMP	rack travel mm	
WITH GOVERNOR	+		
	+	Rated speed rpm	: 1111
	†	Tolerance 1/min	: + 4
GUIDE SLEEVE POSIT	FTON	rack travel mm	: 4.00
GOIDE OFFERE LOST	I	rack travel mom	: 0.85
	1	rack travel mm Tolerance mm	: + 0.55
control lever	_ +		
position degree		B	4044
Rated speed rpm	: 800	Rated speed rpm	10/2
Rack travel in mm	: 0.50	Tolerance 1/min rack travel mm	
Tolerance mm	: + 0.20 I	FOUR FIGYEL MIN	. 12.70
	1	Rated speed rpm	: 1112
	+	Tolerance 1/min	: +- 4
FULL LOAD DELIVERY	Y AT FULL LOAD STOP	rack travel mm	: 4.00
Rated speed rpm	: 1030	rack travel mm Tolerance mm	

Rated speed rpm	: 1073
Tolerance 1/min	: ← 1
rack travel mm	: 12.70
Rated speed rpm	: 1113
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: ← 0.55
Rated speed rpm Tolerance 1/min rack travel mm	: ← 1 : 12.70
Reted speed rpm	: 1114
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: +- 0.55
Rated speed rpm	: 1075
Tolerance 1/min	: + 1
rack travel mm	: 12.70
Rated speed rpm	: 1115
Tolerance 1/min	: + 4
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance mm	: + 0.55
LOW IDLE	
control lever position degree tolerance degree	: 71.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 100
CRT man min.	: > 19.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	
rack travel mm	: 2.00
Rated speed rpm	: 575
Tolerance 1/min	: + 30

rack travel mm	: 2.00	
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1030 : 13.70 : ← 0.05	
Rated speed rpm rack travel mm Tolerance mm	: 600 : 14.70 : + 0.10	
Rated speed rpm rack travel mm Tolerance mm	: 900 : 14.20 : + 0.10	
ANEROID/ALTITUDE COMPENSATOR TEST		
SETTING		
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 450 : 1000 : 14.70 : + 0.15	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 450 : - : 12.40 : + 0.15	
MEASUREMENT		
Rated speed rpm	: 450	
Pressure hPa rack travel mm Tolerance mm	: 750 : 14.00 : + 0.15	
Pressure hPa rack travel mm Tolerance mm	: 650 : 13.40 : + 0.15	
FUEL DELIVERY CHA	RACTERISTICS	
Aneroid pressure	: 1000	
Rated speed rpm Del. quantity cm3/1000 strokes	: 600 : 240.0	

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance
cm3/1000s. : + 5.0
Spreed
Tolerance
cm3/1000 strokes : 8.0
Check tolerance
cm3/1000s. : 12.0

Aneroid pressure hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes : 170.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. : +-4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1000 strokes : 220.0
Tolerance
cm3/1000 strokes : +- 15.0

Check tolerance cm3/1000s. : +- 19.0

LOW IDLE

Rated speed rpm : 550 Rack travel in mm: 4.10 : **←** 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 18.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. : +-6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 28.11.97 : ISO 4113

Combination No. : 0 402 736 849

Injection pump

Pump designation : PES6P120A720/3LS7251

EP type number : 0 412 726 860

Governor

Governer design. : RQV300...1000PA962

: -12K

Governer no. : 0 421 815 407

Cust. part No. : 3-7373

Customer-spec. information Customer : MAN

: D2866LF09

Motor Power KW

: 398.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C

40

Tolerance *C

Overflow valve : 1 417 413 025

Inlet press. bar :

1.5

Tolerance bar : +- 0.1

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

bar

208.5

Tolerance bar : + 1.5

Test Lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter :

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.85 Tolerance mm : + 0.05

Check

tolerance mn: $\leftarrow 0.10$

Rack travel in mm: 15.50

Tolerance m: \leftarrow 0.50

Firing order : 6-2-4-1-5-

Phasing : 0-60-120-180-240

: -300

Tolerance

: + 0.50

Check

tolerance "NW

: **←** 0.75

Start of delivery mark

Tolerance

: **←** 0.10

Check

tolerance *NW

: **←** 0.75

Barrel no.

: 6

BASIC SETTING

Rated speed rpm : 906	guide sleeve travel mm : 6.96 Tolerance mm : +- 0.25
Rack travel in mm : 13.95 Tolerance mm : + 0.05	Rated speed rpm : 305 guide sleeve
Del. quantity cm3/1000 strokes : 294.0	travel mm : 1.88 Tolerance mm : +- 0.25
Tolerance cm3/1000 strokes : + 1.0	- Rated speed rpm : 355 - guide sleeve - travel mm : 2.53
Check tolerance cm3/1000s. : + 4.0	Tolerance mm : ← 0.25 Rated speed rpm : 470
Spreed	guide sleeve travel mm : 3.67 Tolerance mm : +- 0.25
Tolerance - cm3/1000 strokes : 10.0 -	- Rated speed rpm : 1260 guide sleeve
Check tolerance cm3/1000s. : 14.0	travel mm : 13.50 Tolerance mm : +- 0.50
Rated speed rpm : 300	GUIDE SLEEVE POSITION
Rack travel in mm : 5.20 - Tolerance mm : - 0.10 - Del. quantity	control lever position degree : - 1 Rated speed rpm : 1120
cm3/1000 strokes : 32.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance	- Rack travel in mm : 12.50 Tolerance mm : + 2.00
cm3/1000s. : + 6.0 Spreed Tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : 8.0 Check tolerance	Rated speed rpm : 900 Aneroid pressure
	- hPa : 1300 - Del. quantity - cm3/1000 strokes : 294.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
GUIDE SLEEVE TRAVEL	- cm3/1000s. : +- 4.0 - Spreed
Rated speed rpm : 1061 guide sleeve travel mm : 10.46	Tolerance - cm3/1000 strokes : 10.0 - Check tolerance - cm3/1000s. : 14.0
Tolerance mm : + 0.25	
Rated speed rpm : 300 guide sleeve travel mm : 1.88	CONTROL LEVER
Tolerance mm : + 0.25	- control lever - position degree : 300.0
Rated speed rpm : 764	tolerance degree : + 4.0

RATED SPEED

rack travei mm : 12.40 Rated speed rpm : 1045 Tolerance 1/min : +-

rack travel mm 4.00 Rated speed rpm : 1140 Tolerance 1/min

: 0.50 : + 0.50 rack travel mm Tolerance mm Rated speed rpm : 1250

LOW IDLE

control lever

position degree : 252.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 200

CRT mm min. : > 6.70

Testing:

Rated speed rpm : 300 rack travel mm 5.20 : - 0.10 Toterance non

Rated speed rpm : 330

TORQUE CONTROL

900 Rated speed rpm : rack travel nm : 13.95 Tolerance mm : + 0.05

Rated speed rpm : 1000 rack travel ma 13.50 : **←** 0.10 Tolerance man

750 Rated speed rpm : rack travel mm 13.40 : + 0.10 Tolerance man

Rated speed rpm : 750 rack travel mm : 6.50 Tolerance mm : **←** 0.10 ANERGID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 900 Pressure hPa : 1300 rack travel mm : 13.95 : + 0.05 Tolerance mm

900 Rated speed rpm : Pressure hPa 9.10 rack travel mm : + 0.10Tolerance mm

MEASUREMENT

Rated speed rpm : 900

Pressure hPa : rack travel mm : 720 11.90 : +- 0.20 Tolerance mm

Pressure hPa 220 rack travel mm : 9.45 Tolerance mm : **←** 0.05

Start interlock

100 Rated speed rpm : > : < Rated speed rpm 240

Check

speed 1/min : > 80 Check speed 1/min : < 260

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 1300 Rated speed rpm 1000

Del. quantity cm3/1000 strokes : 269.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000s. : +- 6.0

Aneroid pressure

: 1300 Rated speed rpm : 750

Del. quantity cn3/1000 strokes : 287.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Aneroid pressure hPa Rated speed rpm 750 Del. quantity cm3/1000 strokes : 107.0 Tolerance cm3/1000 strokes : +-5.0 Check tolerance cm3/1000s. 8.0 Spreed Tolerance cm3/1000 strokes : 10.0 Check tolerance cm3/1000s. 14.0 Aneroid pressure hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes : 169.0 Tolerance cm3/1000 strokes 1.0 Check tolerance cm3/1000s.4.0 STARTING FUEL DELIVERY Del. quantity cm3/1909 strokes : 210.0 Tolerance cm3/1000 strokes : +- 15.0 Check tolerance cm3/1000s. : + 19.0LOW IDLE Rated speed rom : **3CO** Rack travel in mm: 5.20 Tolerance mm 0.10 Del. quantity cm3/1000 strokes : 32.0 Tolerance

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

End of test specification sheet

B02

cm3/1000 strokes : +-

Check tolerance cm3/1000s.

3.0

6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 01.12.97 : ISO 4113

Combination No. : 0 402 736 915

Injection pump

Pump designation : PES6P120A120RS7413 EP type number : 0 412 726 962

Governor

Governer design. : RQV350...1300PA1364K

Governer no. : 0 421 815 558

Cust. pert No. : 3283601

Customer-spec. information Customer : CUMMINS Metor : 6BTAA Power KW : 142.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 260 Tolerance l/h : + 20.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 har Tolerance bar : + 1.5 Test Lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

rest pressure bar : 26.0 Tolerance bar : +- 1.0 Test pressure bar :

Prestroke mm : 3.75 Tolerance mm : **←** 0.05

Check

: + 0.10 tolerence mm

Rack travel in mm: 12.50 Tolerance mm: +0.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300

Tclerence : +- 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery blocking

*NW after s.o.d. : 5.00 Tolerance

Check

: + 0.50

tolerance °NW

: +- 0.75

Barrel no.

1

BASIC SETTING

Rated speed rpm : 1300

B03

		1
Rack travel in ma	2: 12.20 : + 0.05	Rated speed rpm : 1620 guide sleeve
TOTAL COMM	0.03	travel mm : 13.50
Del. quantity		Tolerance may : +- 0.50
cm3/1000 strokes	: 125.0	Total cance min
	~	
Tolerance		+ GUIDE SLEEVE POSITION
cm3/1000 strokes	: + 1.0	†
Check tolerance		†
		+ control lever
cm3/1000s.	: + 4.0	position degree : - 1
Spreed		Rated speed rpm : 1460
opi eeu		Rack travel in mm : 11.10
Tolerance		+ Tolerance and : + 2.70
cm3/1000 strokes	5.0	1 Cote and 1 2.70
	7 310	
Check tolerance		+ FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s.	: 9.0	
		+ Rated speed rpm : 1300
		+ Aneroid pressure
		+ hPa : 1500
Rated speed rpm	: 350	+ Del. quantity
6 1 4	4.00	+ cm3/1000 strokes : 125.0
Rack travel in m		+ Tolerance
Tolerance mm	: ← 0.10	+ cm3/1000 strokes : + 1.0
Del. quantity cm3/1000 strckes	: 16 5	+ Check tolerance + cm3/1000s. : :- 4.0
Tolerance	. 10 3	
cm3/1000 strokes	• +- 30	+ Tolerance
Check tolerance	3.0	+ cm3/1000 strokes : 5.0
cm3/1000s.	: +- 6.0	+ Check tolerance
Spreed		+ cm3/1000s. : 9.0
Tolerance		+
cm3/1000 strokes	: 7.0	+
Check tolerance		
cm3/1000s.	: 11.0	+ CONTROL LEVER
		†
(B) SETTING OF IN	LIECTICAL DIMO	control lever
WITH GOVERNOR	MECITOR FOR	<pre>+ position degree : 66.0 + tolerance degree : + 4.0</pre>
MTILL GOAEVIAOK		+ coterante degree : 4.0
		T control lever
GUIDE SLEEVE TRAV	/EL	position degree : 120.0
		tolerance degree : - 4.0
Rated speed rpm	: 1398	+
guide sleeve		+ RATED SPEED
travel mm	: 10.63	+ rack travel mm : 11.20
Tolerance mm	: + 0.15	+ Rated speed rpm : 1380
Data dana a dana	. 750	† Tolerance 1/min : ← 5
Rated speed rpm	: 350	The second secon
guide sleeve travel mm	: 1.83	rack travel mm : 4.00
Tolerance mm	: + 0.20	+ Rated speed rpm : 1465 + Tolerance 1/min : + 15
TO COT GRIDE (MI)		+ Check
Rated speed rpm	: 910	speed 1/min : + 20
guide sleeve	- · · · · ·	+
travel mm	: 6.09	rack travel mm : 0.50
Tolerance mm	: + 0.25	Tolerance mm : + 0.50

B04

Rated speed rpm : 1550	† MEAS
	Rate
	Pres
LOW IDLE	† rack
	† Tole
control lever	+ Pres
position degree : 78.	0 + rack
tolerance degree : + 4.	0 † Tole
control lever	I
position degree : 25.	O 🕂 Star
tolerance degree : + 4.	
Setting point w/out bumper	spring + Rate
Rated speed rpm : 250	† Chec
	+ spee
CRT mm min. :> 9.3	O + Chec
Testing:	spee
Rated speed rpm : 350	FUEL
rack travel mm : 6.8 Tolerance mm : + 0.1	0 +
Tolerance mm : + 0.1	\
Rated speed rpm : 350	+ Aner + hPa
nated speed (pin : 556	Rate
	Tole
TORQUE CONTROL	+ cm3/
Rated speed rpm : 1300	+ Chec
Rated speed rpm : 1300 rack travel mm : 12.2 Tolerance mm : + 0.0	0 + cm3/
Tolerance mm : +- 0.0	
Data di anacidi mani i 1400	† Tole
Rated speed rpm : 1100	+ cm3/
Tolerance mm : + 0.1	O + Chec + cm3/
Rated speed rpm : 750	+
rack travel mm : 10.9	_
Tolerance mm : + 0.1	
	hPa + Rate
ANEROID/ALTITUDE	Del.
COMPENSATOR TEST	+ cm3/
	+ Tole
	+ cm3/
SETTING	+ Chec + cm3/
Rated speed rpm : 1300	I cms/
Pressure hPa : 1500	+
rack travel mm : 12.20	O + Aner
Tolerance mm : +- 0.0	
Dated around arm a 4700	+ Rate
Rated speed rpm : 1300 Pressure hPa : -	+ Del. + cm3/
rack travel mm : 9.90	
Tolerance mm : + 0.20	
	1

MEASUREMENT		
Rated speed rpm	: 1300	
Pressure hPa rack travel mm Tolerance mm	: 760 : 11.50 : ← 0.20	
Pressure hPa rack travel mm Tolerance mm	: 400 : 10.40 : ← 0.05	
Start interlock		
Rated speed rpm Rated speed rpm	: > 100 : < 300	
Check speed 1/min Check	: > 80	
speed 1/min	: < 320	
FUEL DELIVERY CHA Aneroid pressure hPa	: 1500	
Rated speed rpm Tolerance		
cm3/1000 strokes Check tolerance	: ← 3.0	
cm3/1000s. Spreed	: +- 6.0	
Tolerance cm3/1000 strokes Check tolerance	: 12.0	
cm3/1000s.	: 16.0	
Aneroid pressure hPa Rated speed rpm Del. quantity	: 1500 : 750	
cm3/1000 strokes Tolerance	: 108.5	
cm3/1000 strokes Check tolerance	: 3.0	
cm3/1000s.	: ← 6.0	
Aneroid pressure	; -	
Rated speed rpm Del. quantity	: 500	
cm3/1000 strokes Tolerance	: 84.0	
cm3/1000 strokes	: ← 2.0	

Check tolerance cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Set starting CRT at K-cam.

Rated speed rpm : 100 rack travel mm : 10.30 Tolerance mm : \leftarrow 0.50 Del. quantity cm3/1000 strokes : \leftarrow 65.0 Tolerance cm3/1000 strokes : \leftarrow 20.0 Check tolerance cm3/1000s. : \leftarrow 24.0

LOW IDLE

cm3/1000s.

Rated speed rpm : 350

Rack travel in mm : 6.80 Tolerance mm : ← G.10 Del. quantity cm3/1000 strokes : 16.5 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : ← 6.0 Spreed Tolerance cm3/1000 strokes : 7.0 Check tolerance

End of test specification sheet

11.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 01.12.97 Test oil : ISO 4113

Combination No. : 0 402 776 840

Injection pump

Pump designation : PES6P120A720LS7440

EP type number : 0 412 726 971

Governor

Governer design. : RSV350...750P0A520

: -1

Governer no. : 0 421 833 262

Cust. part No. : 0270749602

Customer—spec. information Customer : MB-NFZ Motor : 0M447 A Power KW : 180.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 225 Tolerance l/h : + 20.0

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 5.25
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 20.50 Tolerance mm: + 0.50

Firing order : _6- 2- 4- 1- 5-

: 3

Phasing : 0-69-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Tolerance : \leftarrow 0.50

Check

tolerance °NW : + 0.75

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 15.00

B07

Tolonomoo mi	5
Tolerance and : + 0.05	Rated speed rpm : 700 Aneroid pressure
Del. quantity	hPa : -
cm3/1000 strokes : 230.0	Del. quantity
Tolerance	cm3/1000 strokes : 230.0
cm3/1000 strokes : + 1.0	Tolerance cm3/1000 strokes : +- 1.0
	Check tolerance
Check tolerance	cm3/1000s. : + 4.0
cm3/1000s. : + 4.0	Spreed
Spreed	Tolerance cm3/1000 strokes : 5.0
+	Check tolerance
Tolerance	cm3/1000s. : 9.0
cm3/1000 st:rokes : 5.0	
Check tolerance	
cm3/1000s. : 9.0	CONTROL LEVER
Ť	control lever
Rated speed rpm : 350	position degree : 77.0 tolerance degree : +- 4.0
+	4.0
Rack travel in mm: 5.30	ACCES 11 10 10 10 10 10 10 10 10 10 10 10 10
Tolerance mm : + 0.10 + Del. quantity	ASSEMBLY GOVERNOR SETTING
cm3/1000 strokes : 17.0	Rated speed rpm : 750
Tolerance	rack travel mm : 14.00
cm3/1000 strokes : + 3.0	
Check tolerance cm3/1000s. : + 6.0	Rated speed rpm : 785
Spreed +	Tolerance 1/min : +- 4 rack travel mm : 4.00
Tolerance	Tack Clavet min . T.OO
cm3/7000 strokes : 8.0	rack travel mm : 0.85
Check tolerance + cm3/1000s. : 12.0 +	Tolerance mm : + 0.55
CMS/TOUGS. : 12.0	Rated speed rpm : 850
+	
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 751 rack travel mm : 14.00
WITH GOVERNOR +	rack travel mm : 14.00
Ī	Rated speed rpm : 786
	Tolerance 1/min : +- 4
GUIDE SLEEVE POSITION	rack travel mm : 4.00
<u>†</u>	rack travel mm : 0.85
control lever	Tolerance mm : + 0.55
position degree : - 3	Rated speed rpm : 850
Rated speed rpm : 800	
Rack travel in mm: 0.50	Rated speed row . 752
Tolerance mm : + 0.20	Rated speed rpm : 752 rack travel mm : 14.00
governor spring +	Rated speed rpm : 787
pre-tension + click setting x : 0.75 +	Tolerance 1/min : + 4
trick setting x ; 0.75	rack travel mm : 4.00
	rack travel mm : 0.85
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.55
+	Rated speed rpm : 850

Rated speed rpm rack travel mm	: 753 : 14.00
Rated speed rpm Tolerance 1/min rack travel mm	: 788 : + 4 : 4.00
rack travel mma Tolerance mma Rated speed rpm	: 0.85 : + 0.55 : 850
Rated speed rpm rack travel mm	: 754 : 14.00
Rated speed rpm Tolerance 1/min rack travel mm	: + 4
rack travel mm Tolerance mma Rated speed rpm	: ← 0.55
Rated speed rpm rack thavel am	: 755 : 14.00
Rated speed rpm Tolerance 1/min rack travel mm	
rack travel um Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 850
LOW IDLE	
control lever position degree tolerance degree	: 62.0 : + 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 5.30 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 380

: 700 : 15.00 : + 0.05
IVERY
: 100 : 16.00
: 210.0
: ← 15.0
: +- 19.0
: 350
: 5.30 : + 0.10
: 17.0
: ← 3.0
: ← 6.0
: 8.0
: 12.0

End of test specification sheet

SET IDLE AUXILIARY SPRING

Rated speed rpm : 100 rack travel mm : 2.00

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 02.12.97 Edition Test oil : ISO 4113

Combination No. : 0 402 946 030

Injection pump

Pump designation : PES6P120A720RS8049 EP type number : 0 412 926 031

Governor

Governer design. : RQ750PA1299 Governer no. : 0 421 801 810

Cust. part No. : 1397781

Customer-spec. information Customer : SCANIA : DSC1158A Motor

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. °C 40 Tolerance °C. : + 2.0

Overflow valve : 2 417 413 082

inlet press. bar : 2.5
Tolerance bar : + 0.1 Inlet press. bar :

Overflow quantity

min. L/h : 90 Tolerance L/h : + 20.0

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.65
Tolerance mm : + 0.05 Check

tolerance mm

: **←** 0.10

Rack travel in mm : 14.50 : **←** 1.50 Tolerance mm

firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : ← 0.30

Check

tolerance *NW : + 0.75

Start of delivery blocking

Tolerance : + 0.10

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rarted speed rpm : 700 +	Check tolerance cm3/1000s. : 12.0
Rack travel in mm: 13.15 Tolerance mm: + 0.05	
<u> </u>	CONTROL LEVER
Del. quantity cm3/1000 strokes : 363.0	control lever position degree : 22.0
Tolerance cm3/1000 strokes : + 1.0	tolerance degree : + 4.0
Check tolerance cm3/1000s. : + 11.0	control lever position degree : 83.0 tolerance degree : + 4.0
Spreed	ASSEMBLY GOVERNOR SETTING
Tolerance cm3/1000 strokes : 8.0	Rated speed rpm : 750 rack travel mm : 12.10
Check tolerance cm3/1000s. : 12.0	Rated speed rpm : 778 Tolerance 1/min : + 4
‡	rack travel mm : 4.00
Rack travel in mm: 3.00 Tolerance mm: + 0.20	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 850
Del. quantity cm3/1000 strokes : 30.0	- · · · ·
Tolerance cm3/1000 strokes : + 4.0 Check tolerance	Rated speed rpm : 751 rack travel mm : 12.10
cm3/1000s. : + 6.0 + 5preed	Rated speed rpm : 779 Tolerance 1/min : +- 4
Tolerance cm3/1000 strokes : 5.0 Check tolerance	rack travel mm : 4.00
cm5/1000s. : 9.0	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 850
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	Rated speed rpm : 752 rack travel mm : 12.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 780 Tolerance 1/min : + 4 rack travel mm : 4.00
Rated speed rpm : 700 + Aneroid pressure	rack travel mm : 0.50
hPa : 1500 Del. quantity	Tolerance mm : + 0.50 Rated speed rpm : 850
cm3/1000 strokes : 363.0	nated speed (pile : 000
cm3/1000 strokes : + 1.0 +	Rated speed rpm : 753 rack travel mm : 12.10
Check tolerance cm3/1000s. : + 11.0	
Spreed + Tolerance +	Rated speed rpm : 781 Tolerance 1/min : +- 4
cm3/1000 strokes : 8.0 +	rack travel mm : 4.00

rack travel am	:	0.50
Tolerance mm	: +-	0.50
Rated speed rpm	:	850

Rated speed	rpa	:	754
rack travel	CRETA	:	12.10

Rated speed rpm	:	782
Tolerance 1/min	: +-	4
rack travel mm	:	4.00

rack travel mm	:	0.50
Tolerance mm	: +-	0.50
Rated speed rpm	:	850

Rated speed	rpm	:	755
rack travel	TRATA	:	12.10

Rated speed : Tolerance 1/m rack travel m	ท่ำก :	← 783 ← 4 4.00
I GCK CI GACC I		4.00

rack travel mm	:	0.50
Tolerance mm	: +-	0.50
Rated speed rpm	:	850

TORQUE CONTROL Rated speed rpm : 700 rack travel mm : 13.15 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	•	50 0
Pressure hPa	:	1500
rack travel mm	:	13.15
Tolerance mm	: 4	- 0.05

Rated speed rpm	•	500
Pressure hPa	:	-
rack travel mm	:	7.80
Tolerance mm	: +	- 0.20

MEASUREMENT

Rated	speed	rpm	:	500
-------	-------	-----	---	-----

Pressure hPa	:	230
rack travel mm	:	8.45
Tolerance mm	: +	- 0.25

Pressure hPa : 580 rack travel mm : 10.45 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	_
Rated speed rpm	:	500
Del guantity		

Del. quantity cm3/1000 strokes : 230.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : \leftarrow 7.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Note remarks

Refer to Service Info for test and adiustment instructions. See microcard(s) W400/...

Edition Test oil

: 01.12.97 : ISO 4113

Combination No. : 0 403 244 056

Injection pump

Pump designation : PES4MH100/720RS1525

EP type number : 0 413 204 022

Governor

Governer design. : RQ300/1300MW160

Governer no. : 0 420 082 077

Cust. part No. : 0270749502

Customer-spec. information

Customer : MB-NFZ

Motor

: 0M364LA

Power KW

: 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

40

Tolerance °C

: ← 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

: 208.5

Tolerance bar

Test Lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : ← 1.0

Prestroke mm : 4.55 Tolerance mm : + 0.05

: +- 0.10

Check

tolerance mm

Rack travel in mm: 20.00 Tolerance mm : +- 1.00

Firing order : 1-3-4-2

Phasina Phasing Tolerance : 0-90-180-270

: **←** 0.50

Check

tolerance *NW

: ← 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.30

Tolerance mm

: + 0.05

Del. quantity

cm3/1000 strokes : 119.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s.

: + 3.0

Spreed

Tolerance cm3/1000 strokes : 3.5	‡ <u> </u>
Check tolerance	GUIDE SLEEVE POSITION
cm3/1000s. : 6.0	Į
	+ control lever
	position degree : VL
Rated speed rpm : 300	control lever
	position degree : 109
Rack travel in mam: 3.90	+ Rated speed rpm : 800
Tolerance mm : + 0.10	†
Del. quantity cm3/1000 strokes : 12.0	Rack travel in mma: 20.00
cm3/1000 strokes : 12.0 Tolerance	Tolerance mm : + 0.80
cm3/1000 strokes : + 2.0	
Check tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000s. : + 4.5	THE BOND BEET SELL HE LOSE COMP STOP
Spreed	Rated speed rpm : 1300
Tolerance	+ Aneroid pressure
cm3/1000 strokes : 3.5	+ hPa : 1200
Check tolerance 5.5	Del. quantity
cm3/1000s. : 5.5	+ cm3/1000 strokes : 119.0 + Tolerance
	cm3/1000 strokes : + 1.0
(B) SETTING OF INJECTION PUMP	Check tolerance
WITH GOVERNOR	cm3/1000s. : +- 3.0
	Spreed
	+ Tolerance
GUIDE SLEEVE TRAVEL	+ cm3/1000 strokes : 3.5
Rated speed rpm : 1353	+ Check tolerance + cm3/1000s. : 6.0
guide sleeve	† cm3/1000s. : 6.0
travel mm : 6.52	I
Tolerance mm : + 0.15	
	+ CONTROL LEVER
Rated speed rpm : 300	+
guide sleeve	control lever
travel mm : 1.12 Tolerance mm : + 0.20	position degree : 95.0
TOTE FOR ICE IN . F- U.20	tolerance degree : + 4.0
Rated speed rpm : 1300	+ RATED SPEED
guide sleeve	† rack travel mm : 12.30
travel num : 6.00	Rated speed rpm : 1345
Tolerance mm : +- 0.10	† Tolerance 1/min : ← 5
Rated speed rpm : 458	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1465
travel mm : 2.45	Tolerance 1/min : + 15
Tolerance mm : + 0.10	†
Rated speed rpm : 750	+ rack travel mm : 0.50 + Tolerance mm : + 0.50
guide steeve	Tolerance mm : + 0.50 + Rated speed rpm : 1575
travel mm : 6.00	- Idea opeca i piii i i i i i i i
Tolerance mm : + 0.10	+
Dated aread was a 4570	†
Rated speed rpm : 1570 guide sleeve	LOW IDLE
travel mm : 11.50	T FOM TOPE
Tolerance mm : +- 0.50	1
	ī

control lever position degree tolerance degree	: 69.0 : ← 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 200
CRT mm min.	: > 4.30
Testing:	
Rated speed rpm rack travel mma Tolerance mma	: 300 : 3.90 : + 0.10
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1300 : 13.30 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 750 : 13.30 : +- 0.20
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 13.30
Rated speed rpm Pressure hPa Tolerance mm	: 500 : - : + 0.10
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel am Tolerance mm	: 400 : 2.00 : + 0.10
Pressure hPa rack travel mm Tolerance mm	: 200 : 0.50 : + 0.10
Start interlock	

Check speed 1/min	: > 80
Check	
speed 1/min	: < 220
FUEL DELIVERY CHA	ARACTERISTICS
Aparaid passess	
Aneroid pressure hPa	: 1200
Rated speed rpm	: 750
Del. quantity	_
cm3/1000 strokes Tolerance	: 116.0
cm3/1000 strokes	: + 1.5
Check tolerance	
cm3/1000s. Spreed	: +- 4.0
Tolerance	
cm3/1000 strokes	: 6.0
Check tolerance	A. 41
cm3/1000\$.	: 9.0
Aneroid pressure	
hPa	: -
Rated speed rpm	500
Del. quantity	
cm3/1000 strokes	: 73.0
Tolerance cm3/1000 strokes	: ← 1.0
Check tolerance	• • • • • • • • • • • • • • • • • • • •
cm3/1000s.	: ← 3.0
REDUCED QUANTITY	
Aneroid pressure	
hPa	: 1200
Rated speed rpm Del. quantity	: 1300
cm3/1000 strokes	: 105.0
Tolerance	
cm3/1000 strokes	: 1.5
Check tolerance cm3/1000s.	: + 3.0
UIID/ 10003.	. - 5.0
	TUENV
STARTING FUEL DEL	.IVERT
Rated speed rpm	: 100
Rated speed rpm Del. quantity	: 100
Rated speed rpm Del. quantity cm3/1000 strokes	: 100
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 100 : 150.0
Rated speed rpm Del. quantity cm3/1000 strokes	: 100

Check

Rated speed rpm :> 100 Rated speed rpm :< 200

LOW IDLE

Rated speed rpm	:		300
Rack travel in mm	:		3.90
Tolerance mm		+-	0.10
Del. quantity			
	:		12.0
Tolerance			
cm3/1000 strokes	:	+-	2.0
Check tolerance			
cm3/1000s.	:	+-	4.5
Spreed			
Tolerance			
cm3/1000 strokes	:		3.5
Check tolerance			
cm3/1000s.	:		5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 01.12.97 Test oil : ISO 4113

Combination No. : 0 403 446 158

Injection pump

Pump designation : PES6MW100/720RS1131

EP type number : 0 413 406 123

Governor

Governer design. : RQV300...1300MW50-1

Governmen no. : 0 420 083 089

Cust. part No. :

Customer-spec. information Customer : MB-NFZ Motor : OM 366 LA

Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : **←** 2.0 Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar: 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar

Test Lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : 3.75 : +- 0.05 Tolerance mm Check

tolerance mm : +- 0.10

Rack travel in iam: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

RASIC SETTING

Del. quantity

Rated speed rpm : 1300

Rack travel in mm: 12.25

Tolerance mm : + 0.05

cm3/1000 strokes : 97.5

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. : +-3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s. : 6.0	guide sleeve travel mm : 11.50 Tolerance mm : + 0.50
Rated speed rpm : 300	GUIDE SLEEVE POSITION
Rack travel in mm : 6.90 Tolerance mm : + 0.10	control lever
Del. quantity	+ position degree : -1
cm3/1000 strokes : 11.0 Tolerance	+ Rated speed rpm : 1340
cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5	+ Rack travel in mm : 16.50 + Tolerance mm : +- 1.30
Spreed	5.0
Tolerance cm3/1000 strokes : 3.5	+ FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s. : 5.5	+ Rated speed rpm : 1300 + Aneroid pressure
	+ hPa : 700 + Del. quantity
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ cm3/1000 strokes : 97.5 + Tolerance
	→ cm3/1000 strokes : ← 1.0 → Check tolerance
GUIDE SLEEVE TRAVEL	+ cm3/1000s. : +- 3.0 + Spreed
Rated speed rpm : 1354 guide sleeve	Tolerance : 3.5
travel am : 8.68	+ Check tolerance
Tolerance um : - 0.25	- cm3/1000s. : 6.0
Rated speed rpm : 300	Ŧ
guide sleeve travel mm : 1.40	CONTROL LEVED
Tolerance man : + 0.25	CONTROL LEVER
Rated speed rpm : 881	+ control lever + position degree : 114.0
guide sleeve	+ tolerance degree : + 4.0
travel mm : 5.02	†
Tolerance mm : + 0.25	+ RATED SPEED + rack travel mm : 11.20
Rated speed rpm : 363 guide sleeve	+ Rated speed rpm : 1345 + Tolerance 1/min : +- 5
guide sleeve travel mm : 2.05 Tolerance mm : +- 0.25	+
Tolerance mm : ← 0.25	+ rack travel mm : 4.00 + Rated speed rpm : 1455
Rated speed rpm : 413 guide sleeve	Tolerance 1/min : + 15
guide steeve travel mm : 2.44	rack travel mm : 0.50
Tolerance mm : + 0.25	Tolerance mm : + 0.50 Rated speed rpm : 1550
Rated speed rpm : 500 quide sleeve	ענכו אוויין איייין אייייין איייייין איייייייי
travel non : 2.99	1
guide sleeve travel mm : 2.99 Tolerance mm : + 0.25	LOW IDLE
Rated speed rpm : 1600	T LOW IDEE

control lever position degree 80.0 tolerance degree : +-4.0 Setting point w/out bumper spring 100 Rated speed rpm : CRT ma min. 7.60 : > Testing: Rated speed rpm 300 rack travel mm 6.90 Tolerance mm 0.10 TORQUE CONTROL Rated speed rpm 1300 12.25 rack travel ma Tolerance mm : +- 0.05 Rated speed rpm 575 12,25 rack travel am Tolerance ma : +- 0.10 ANEROID/ALTITUDE COMPENSATOR TEST SETTING 500 Rated speed rpm Pressure hPa 700 rack travel ma 12.25 Tolerance mm : + 0.10 500 Rated speed rpm Pressure hPa : + 0.05 Tolerance mm MEASUREMENT Rated speed rpm 500 Pressure hPa 225 1.40 rack travel mm : + 0.10Tolerance mm Pressure hPa 170 0.40 rack travel mm Tolerance mm : **←** 0.10

100

220

: >

: <

Check speed 1/min : > 80 Check speed 1/min : < 250 FUEL DELIVERY CHARACTERISTICS Aneroid pressure 700 hPa 575 Rated speed rpm Del. quantity cm3/1000 strokes : 84.5 Tolerance cm3/1000 strokes : +-1.5 Check tolerance cm3/1000s. 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance cm3/1000s. 7.0 : Aneroid pressure hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes : 52.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 3.0 STARTING FUEL DELIVERY Rated speed rpm 100 Del. quentity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : +-5.0 Check tolerance cm3/1000s. : +-8.0 LOW IDLE Rated speed rpm : 300 Rack travel in mm: 6.90 Tolerance mm : +-0.10 Del. quantity

cm3/1000 strokes :

11.0

Start interlock

Rated speed rpm

Rated speed rpm

Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 01.12.97 Test oil : ISO 4113

Combination No. : 0 402 648 788

Injection pump

Pump designation : PE8P12OA32OLS7897 EP type number : 0 412 628 915

Governor

Soverner design. : RQV350...1050PA1307

Governer no. : 0 421 814 180

Cust. part No. :

Customer—spec. information Customer : MB—NFZ Motor : 0M442 LA Power KW : 370.0

TEST BENCH REQUIREMENTS

Inlet Line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 077

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 110 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 2.5 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.80
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 20.50 Tolerance mm : + 0.50

Firing order : 8-7-2-6-3 :-5-4-1

Phasing : 0-45-90-135-180

: -225-270-315 Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Tolerance : + 0.10

Check

tolerance °NW : +- 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 15.35 Tolerance mm : + 0.05

		+ guide sleeve
Del. quantity		
cm3/1000 strokes	: 272.0	Tolerance mm : +- 0.25
Tolerance	***************************************	Rated speed rpm : 1204
cm3/1000 strokes	: ← 1.0	guide sleeve
	• • • • • • • • • • • • • • • • • • • •	+ travel mm : 10.00
Check tolerance		Tolerance mm : + 0.25
cm3/1000s.	: ← 4.0	T locer ance in U.2
CHO7 10000.	• • •••	Rated speed rom : 1300
Spreed		+ Rated speed rpm : 1300 + guide sleeve
opi eeu		
Tolerance		travel mm : 11.50
cm3/1000 strokes	: 5.0	→ Tolerance mm : → 0.50
CALST TOUG SCHOKES	: 5.0	†
Obselvations		
Check tolerance	0.0	GUIDE SLEEVE POSITION
cm3/1000s.	: 9.0	†
		+ control lever
~	750	position degree : -1
Rated speed rpm	: 350	Rated speed rpm : 1160
	- 45	†
Rack travel in m		+ Rack travel in mm : 14.30
Tolerance mm	: ← 0.10	† Tolerance mm : + 1.30
Del. quantity		+
cm3/1000 strokes	: 20.0	
Tolerance		+ FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes	: ← 3.0	+
Check tolerance		+ Rated speed rpm : 1050
cm3/1000s.	: + 6.0	+ Aneroid pressure
Spreed		+ hPa : 1800
Tolerance		+ Del. quantity
cm3/1000 strokes	: 6.0	+ cm3/1000 strokes : 272.0
Check tolerance		+ Tolerance
cm://1000s.	: 10.0	+ cm3/1000 strokes : $+$ 1.0
		+ Check tolerance
		+ cm3/1000s. : + 4.0
(B) SETTING OF IN	WECTION PUMP	Spreed
WITH GOVERNOR		Tolerance
		+ cm3/1000 strokes : 5.0
GUIDE SLEEVE TRAN	/EL	+ cm3/1000s. : 9.0
		+
Rated speed rpm	: 1108	+
guide sleeve		
travel mm	: 8.04	+ CONTROL LEVER
Tolerance mm	: ← 0.15	
		+ control lever
Rated speed rpm	: 350	position degree : 121.0
guide sleeve		+ tolerance degree : + 4.0
travel mm	: 1.48	+
Tolerance mm		RATED SPEED
		+ rack travel mm : 14.30
Rated speed rpm	: 900	Rated speed rpm : 1095
quide sleeve		+ Tolerance 1/min : + 5
travel mm	: 5.69	
Tolerance mm	: ← 0.25	rack travel mm : 4.00
		+ Rated speed rpm : 1195
Rated speed rpm	: 570	+ Tolerance 1/min : + 15
reson speed that	, ,,,	1 Section 17 mill
		Т

rack travel man Tolerance man Rated speed rpm	: +	0.50 0.50 1240	
LOW IDLE			
control lever position degree tolerance degree	: +-	67.0 4.0	
Setting point w/o	ut bu	mper spr	ir
Rated speed rpm	:	250	
CRT mm min.	; >	7.50	
Testing:			
Rated speed rpm	•	350 5.10	

Rated speed rpm rack travel mm Tolerance mm	: +	350 5.10 - 0.10
Rated speed rom	•	450

TORQUE CONTROL Rated speed rom rack travel man Tolerance man	: 1050 : 15.35 : + 0.05
Rated speed rpm rack travel man	: 800 : 15.35
Tolerance as	: + 0.10

ANEROID/ALTI	ITUDE
COMPENSATOR	TEST

SETTING

Rated speed rpm	:	500
Pressure hPa	:	_

MEASUREMENT

Pressure hPa	:	290
rack travel mme	:	1.00
Tolerance mm	: +	- 0.05
Pressure hPa	•	660

riessure iira	•	000
rack travel mm	:	4.10
Tolerance mm	: +	- 0.20

Start interlock

speed speed	-	> <	210 270

Check
speed 1/min :> 190
Check
speed 1/min : < 290

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa Rated speed rpm	:	1800 800
Del. quantity cm3/1000 strokes Tolerance	:	274.0
cm3/1000 strokes	: ₹	- 3.0
Check tolerance cm3/1000s.	: +	- 6.0

Aneroid pressure			
hPa	•		_
Rated speed rpm	:		500
Del. quantity cm3/1000 strokes	•		140.0
Tolerance	•		
cm3/1000 strokes	:	+-	1.0
Check tolerance cm3/1000s.	:	+-	4.0

REDUCED QUANTITY

Aneroid pressure hPa Rated speed rpm	:		800 050
Del. quantity cm3/1000 strokes Tolerance	:		156.0
cm3/1000 strokes	:	+-	2.0
Check tolerance cm3/1000s.	:	+	5.0

STARTING FUEL DELIVERY

Rated speed rpm	:	100
Del. quantity cm3/1000 strokes	:	270.0
Tolerance cm3/1000 strokes	: +-	- 10.0
Check tolerance	• `	
cm3/1000s.	: +-	- 14.0

LOW IDLE

Rated speed rpm	:	350
Rack travel in mm Tolerance mm	: +-	5.10 0.10
Del. quantity cm3/1000 strokes Tolerance	:	20.0
cm3/1000 strokes Check tolerance	: +	3.0
cm3/1000s. Spreed	: +-	6.0
Tolerance cm3/1000 strokes Check tolerance	:	6.0
cm3/1000s.	:	10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 23.06.89 Test oil : ISO 4113

Combination No. : 0 403 446 167

Injection pump

Pump designation : PES6MW100/320RS1136

EP type number : 0 413 406 128

Governor

Governer design. : RQV350...1100MW54-2 Governer no. : 0 420 083 096

Cust. part No. :

Customer-spec. information Customer : VOLVO Motor : TD 61 Power KW : 111.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0 temp. °C

Overflow valve : 1 457 413 010

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length man :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar: 31.0 Tolerance bar : +- 1.0

Prestroke mm : 3.05 Tolerance mm : + 0.05

Check

tolerance mm : ← 0.10

Rack travel in mm: 10.50 Tolerance m_1 : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

æ: + 0.75 tolerance "NW

BASIC SETTING

Del. quantity

cm3/1000 strokes : 111.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.

6.0

	l Amana dal musa a succ
	+ Aneroid pressure + hPa : 1000
Rated speed rpm : 350	Del. quantity
· · · · · · · · · · · · · · · · · · ·	cm3/1000 strokes : 111.0
Rack travel in mm: 6.35	† Tolerance
Tolerance and : + 0.05	+ cm3/1000 strokes : + 1.0
Del. quantity cm3/1000 strokes : 18.0	Check tolerance
Tolerance	+ cm3/1000s. : + 3.0 + Spreed
cm3/1000 strokes : + 2.0	Tolerance
Check tolerance	cm3/1000 strokes : 3.5
$cm3/1000s$. : \leftarrow 4.0	Check tolerance
Spreed	+ cm3/1000s. : 6.0
Tolerance cm3/1000 strekes : 3.5	†
cm3/1000 strekes : 3.5 Check tolerance	İ
cm3/1000s. : 5.0	CONTROL LEVER
	- CONTINUE CEVER
	control Lever
(B) SETTING OF INJECTION PUMP	position degree : 100.0
WITH GOVERNOR	tolerance degree : + 4.0
	T RATED SPEED
GUIDE SLEEVE TRAVEL	T RAIED SPEED T rack travel mm : 11.40
GOTOT GEGETE HAVEE	Rated speed rpm : 1145
Rated speed rpm : 300	Tolerance 1/min : + 5
guide sleeve	
travel mm : 0.90	rack travel mm : 4.00
Tolerance mm : + 0.20	Rated speed rpm : 1215
	+ Tolerance 1/min : - 15
Rated speed rpm : 1210	+
guide sleeve	rack travel mm : 0.55
travel mm : 9.70	Tolerance mm : + 0.45
Tolerance mm : + 0.20	Rated speed rpm : 1350
Rated speed rpm : 1150	Ī
guide steeve	I
travel mm : 8,70	
Tolerance mm : +- 0.10	LOW IDLE
	+
Rated speed rpm : 550	+
guide sleeve	control lever
travel mm : 2.60 . Tolerance mm : + 0.30	position degree : 68.0
Tolerance am : + 0.30	tolerance degree : +- 4.0
	Cotting point which human anning
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
	Rated speed rpm : 100
	Hacea speed (pill : 100
control lever	CRT man main. : > 7.80
position degree : -1	+
position degree : -1 Rated speed rpm : 1150	Testing:
D al A. 1 1 47 50	t
Rack travel in mm: 16.50	Rated speed rpm : 350
Tolerance mm : + 1.30	rack travel mm : 6.35
·	Tolerance mm : + 0.05
FULL LOAD DELIVERY AT FULL LOAD STOP	Poted speed not
FULL LOAD DELIVER! AT FULL LUAD STOP	Rated speed rpm : 410
•	1

Rated speed rpm : 700

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	500
Pressure hPa	:	1000
rack travel mm	:	12.45
Tolerance mm	: -	0.05

Rated speed rpm	:	500
Pressure hPa	:	
rack travel num	:	10.95
Tolerance mm	: ⊣	

MEASUREMENT

Rated speed rpm	:	500
Pressure hPa rack travel mm Tolerance mm	: +	440 12.15 - 0.0 5

Pressure hPa	:	230
rack travel mm	:	11.25
Tolerance mm	: +	- 0.15

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	1000
Rated speed rpm	:	1000
Del. quantity		
cm3/1000 strokes	:	113.0
Tolerance		
cm3/1000 strokes	: +	- 2.0
Check tolerance		
cm3/1000s.	: +	- 4.0
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	7.0

Aneroid pressure			
hPa	:		-
Rated speed rpm	:		700
Del. quantity			
cm3/1000 strokes	:		83.0
Tolerance			
cm3/1000 strokes	:	+-	1.0
Check tolerance			
cm3/1000s.	:	+-	3.0

STARTING FUEL DELIVERY

Rated speed rpm	:		100
rack travel mm	:		20.00
Tolerance mm	:	+-	1.00
Del. quantity			
cm3/1000 strokes	:		150.0
Tolerance			
cm3/1000 strokes	:	+-	10.0
Check tolerance			
cm3/1000s.	:	+-	13.0

LOW IDLE

Rated speed rpm	:	350	
Rack travel in mmn Tolerance mmn Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: : +-	6.35 0.05 18.0 2.0 4.0	
Check tolerance cm3/1090s.	:	5.0	

BOSCH INJ. PUMP TEST SPECIFICATIONS Note remarks Refer to Service Info for test and adjustment instructions. See microcard(s) W400/... Edition : 24.08.95 Test oil : ISO 4113 Combination No. : 0 400 463 132 Injection pump Pump designation : PES3A75D410/3RS1324 EP type number : 0 410 473 977 Governor Governer design: : RSV325...1150A3c4940 : 0 420 232 301 Governer no. Cust. part No. Customer-spec. information Customer : KHD Motor : F3L912 TEST BENCH REQUIREMENTS Inlet line : 3.1 Test oil inlet temp. °C Tolerance °C Overflow valve : 1 417 413 000 Inlet press. bar : 1.0 Test nozzle holde : 0 681 343 009 assembly Opening pressure bar 173.5 Tolerance bar : +- 1.5 Test lines : 1 680 750 014

x length mma : 600
REMARKS
(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values
BEGINNING OF DELIVERY
Test pressure bar : 26.0 Tolerance bar : + 1.0
Prestroke mms : 1.95 Tolerance mm : + 0.05 Check tolerance mm : + 0.10
Rack travel in mm: 10.50 Tolerance mm: + 1.50
Firing order : 1- 3- 2
Phasing : 0-120-240 Tolerance : + 0.50 Check tolerance *NW : + 0.75
BASIC SETTING
Rated speed rpm : 1150
Rack travel in mm : 10.65 Tolerance mm : + 0.05
Del. quantity cm3/1000 strokes : 44.0
Tolerance cm3/1000 strokes : + 0.5
Check tolerance cm3/1000s. : +- 2.0
Spreed
Tolerance cm3/1000 strokes : 2.0

400

v length me

Outside diameter :

x inside diameter:

6.0

2.0

Check tolerance	+
cm3/1000s. : 3.5	🖟 control lever
	position degree : 54.0
	tolerance degree : + 4.0
	+
Rated speed rpm : 325	RATED SPEED
	rack travel mm : 9.60
Rack travel in mm: 5.00	Rated speed rpm : 1195
Tolerance mm : + 0.10	Tolerance 1/min : +- 5
Del. quantity	+
cm3/1000 strokes : 10.5	rack travel mm : 4.00
Tolerance	Rated speed rpm : 1235
cm3/1000 strokes : + 3.0	Tolerance 1/min : + 15
Check tolerance	+
cm3/1000s. : +- 4.5	† rack travel mm : 1.00
Spreed	† Tolerance mm : + 0.70
Tolerance	Rated speed rpm : 1350
cm3/1000 strokes : 2.0	†
Check tolerance	†
cm3/1000s. : 3.0	†
•	1011 701 5
(B) SETTING OF INJECTION PUMP	LOW IDLE
WITH GOVERNOR	Ţ
WITH GOVERNOR	control lever
	position degree : 21.0
	tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	toterance degree . 1 4.0
	- Setting point w/out bumper spring
	de la contra del contra de la contra del la contra del la contra del la contra del la contra del la contra de la contra del la contra de
control lever	Rated speed rpm : 325
control lever position degree : - 3	Rated speed rpm : 325 rack travel mm : 5.50
	Rated speed rpm : 325 rack travel mm : 5.50 Tolerance mm : + 0.10
position degree : -3 - Rated speed rpm : 800 -	rack travel mm : 5.50 Tolerance mm : + 0.10
position degree : -3 Rated speed rpm : 800 Rack travel in rum : 0.65	Rated speed rpm : 325 rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100
position degree : -3 - Rated speed rpm : 800 -	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100
position degree : -3 Rated speed rpm : 800 Rack travel in rum : 0.65	rack travel mm : 5.50 Tolerance mm : + 0.10
position degree : - 3 Rated speed rpm : 800 Rack travel in rum : 0.65 Tolerance mm : + 0.35	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00
position degree : -3 Rated speed rpm : 800 Rack travel in rum : 0.65	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100
position degree : - 3 Rated speed rpm : 800 Rack travel in rum : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 1G0 CRT mm min. :> 19.00 Testing:
position degree : - 3 Rated speed rpm : 800 Rack travel in rum : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 1G0 CRT mm min. : > 19.00 Testing: Rated speed rpm : 325
position degree : - 3 Rated speed rpm : 800 Rack travel in rm : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 1G0 CRT mm min. : > 19.00 Testing: Rated speed rpm : 325
position degree : - 3 Rated speed rpm : 800 Rack travel in rxm : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : -	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 1G0 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325
position degree : - 3 Rated speed rpm : 800 Rack travel in rum : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10
position degree : - 3 Rated speed rpm : 800 Rack travel in rxm : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : -	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00
position degree : - 3 Rated speed rpm : 800 Rack travel in rum : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 44.0	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10
position degree : - 3 Rated speed rpm : 800 Rack travel in rum : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 44.0 Tolerance	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 420
position degree : - 3 Rated speed rpm : 800 Rack travel in rum : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 44.0 Tolerance cm3/1000 strokes : + 0.5	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 420
position degree : - 3 Rated speed rpm : 800 Rack travel in rm : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : + 44.0 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 420 Tolerance 1/min : + 30
position degree : - 3 Rated speed rpm : 800 Rack travel in rm : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : + 44.0 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 420 Tolerance 1/min : + 30
position degree : - 3 Rated speed rpm : 800 Rack travel in rm : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 44.0 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.0	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 420 Tolerance 1/min : + 30 Rated speed rpm : 500
position degree : - 3 Rated speed rpm : 800 Rack travel in rum : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : + 44.0 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 420 Tolerance 1/min : + 30 Rated speed rpm : 500 CRT mm max. : < 1.00
position degree : - 3 Rated speed rpm : 800 Rack travel in rm : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 44.0 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.0	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 420 Tolerance 1/min : + 30 Rated speed rpm : 500 CRT mm max. : < 1.00
position degree : - 3 Rated speed rpm : 800 Rack travel in rum : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : + 44.0 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 420 Tolerance 1/min : + 30 Rated speed rpm : 500 CRT mm max. : < 1.00 TORQUE CONTROL Rated speed rpm : 1150
position degree : - 3 Rated speed rpm : 800 Rack travel in rum : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : + 44.0 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 420 Tolerance 1/min : + 30 Rated speed rpm : 500 CRT mm max. : < 1.00 TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 10.65
position degree : - 3 Rated speed rpm : 800 Rack travel in rum : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 44.0 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance cm3/1000 strokes : 3.5	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 160 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 420 Tolerance 1/min : + 30 Rated speed rpm : 500 CRT mm max. : < 1.60 TORQUE CONTROL Rated speed rpm : 1150
position degree : - 3 Rated speed rpm : 800 Rack travel in rm : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : + 4.0 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 420 Tolerance 1/min : + 30 Rated speed rpm : 500 CRT mm max. : < 1.00 TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 10.65 Tolerance mm : + 0.05
position degree : - 3 Rated speed rpm : 800 Rack travel in rum : 0.65 Tolerance mm : + 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1150 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 44.0 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance cm3/1000 strokes : 3.5	rack travel mm : 5.50 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.00 Testing: Rated speed rpm : 325 rack travel mm : 5.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 420 Tolerance 1/min : + 30 Rated speed rpm : 500 CRT mm max. : < 1.00 TORQUE CONTROL Rated speed rpm : 1150 rack travel mm : 10.65

Tolerance mm : ← 0.10

Rated speed rpm : 500 rack travel mm : 11.65 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

rack travel mm : 11.65
Tolerance mm : + 0.05

STARTING FUEL DELIVERY

Rated speed rpm : 100

LOW IDLE

Rated speed rpm : 325

Rack travel in mm: 5.00 Tolerance mm: + 0.10

Del. quantity

cm3/1000 strokes : 10.5

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : +- 4.5

Spreed

Tolerance

cm3/1000 strokes : 2.0

Check tolerance

cm3/1000s. : 3.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 12.05.95 : ISO 4113

Combination No. : 9 400 030 696

Injection pump

Pump designation : PES6A95D32ORS2881 EP type number : 9 410 037 215

Governor

Governer design. : RSV475...1250A0c826R

Governer no. : 9 420 034 700

Cust. part No. :

Customer-spec. information

Customer : CUMMINS

Motor

: 6BT - 165 PS

TEST BENCH REQUIREMENTS

Inlet line : 1.1

Test oil inlet

temp. °C

40

Temp. TC

Overflow valve : 1 417 413 047

Inlet press. ber :

1.5

Tolerance bar : → 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

har

207.0

Tolerance bar

: +- 3.0

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

2.85 Prestroke mm

Tolerance mm

: +- 0.05

Check

tolerance mm

: **←** 0.10

Rack travel in mm : 10.50

Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing

: 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 12.15

Tolerance mm: +- 0.05

Rated speed rpm : 475

Rack travel in mm :

5.10 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 16.0

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance cm3/1000s.

: + 4.5

Spreed

Tolerance

cm3/1000s.

cm3/1000 strokes :

3.5

Check tolerance

5.5

(B) SETTING OF INJECTION PUMP WITH GOVERNOR

GUIDE SLEEVE POSITION

governor spring pre-tension

click setting x: 2.50

CONTROL LEVER

control lever

position degree : 54.5 tolerance degree : + 4.0

RATED SPEED

rack travel mm : 11.10 Rated speed rpm : 1300 Tolerance 1/min : + 5

rack travel am : 4.00 Rated speed rpm : 1395 Tolerance 1/min : - 15

rack travel mm : 1.20
Tolerance mm : + 0.50
Rated speed rpm : 1450

LOW IDLE

control lever

position degree : 27.5 tolerance degree : + 4.0

Setting point w/out busper spring

Rated speed rpm : 100

CRT mm min. : > 19.50

Testing:

Rated speed rpm : 475 rack travel mm : 5.10 Tolerance mm : + 0.10

rack travel mm : 2.00 Rated speed rpm : 540 2.00 Tolerance 1/min : + 30

TORQUE CONTROL

Rated speed rpm : 1250 rack travel mm : 12.15 Tolerance mm : + 0.05

Rated speed rpm : 500 rack travel mm : 12.15 Tolerance mm : + 0.10

Rated speed rpm : 800 rack travel mm : 12.15 Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 800 Pressure hPa : 1000 rack travel mm : 12.15 Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : 505
rack travel mm : 11.10
Tolerance mm : + 0.10

MEASUREMENT

Rated speed rpm : 800

Pressure hPa : - rack travel mm : 8.55 Tolerance ma: + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 65.0

Tolerance

cm3/1000 strokes : + 1.5 Check tolerance

cm3/1000s. : +- 4.0

Aneroid pressure

: 1000 Rated speed rpm : 800 rack travel mm : 12.15

Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes 114.0 Tolerance cm3/1000 strokes : +-1.5 Check tolerance cm3/1000s. 4.0 STARTING FUEL DELIVERY Rated speed rpm 100 rack travel mm 20.25 Tolerance mm : + 0.75Del. quantity cm3/1000 strokes : 155.0 Tolerance cm3/1000 strokes : + 7.0 Check tolerance cm3/1000s. : + 10.0LOW IDLE Rated speed rpm 475 Rack travel in mm : 5.10 Tolerance mm 0.10 Del. quantity cm3/1000 strokes : 16.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000S. 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 21,07,95 : ISO 4113

Combination No. : 0 402 046 860

Injection pump

Pump designation : PES6P110A320LS3330

EP type number : 0 412 016 745

Governor

Governer design. : RQV350...1150PA1130K

Governer no. : 0 421 815 386

Cust. part No. : 1823135091

Customer-spec. information

Customer : NAVISTAR

Motor

: DT-466

Power KW

: 156.5

TEST BENCH REQUIREMENTS

Inlet line

: 2.4

Test oil inlet

temp. °C

40

Tolerance °C

: + 2.0

Overflow valve : 2 417 413 076

Inlet press. bar : 2.8

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

: 208.5

Tolerance bar

: **←** 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 3.00

Tolerance mm

: +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 15.50

Tolerance mm : + 1.50

Firing order

: 1-5-3-6-2-

: 4

Phasing

: 0-60-120-180-240

: -300

Tolerance

: **←** 0.50

Check

tolerance *NW

: +- 0.75

BASIC SETTING

Rated speed rpm : 750

Rack travel in mm: 13.55

Toterance non

: ∹- 0.05

Del. quantity

cm3/1000 strokes : 150.0

Tolerance

cm3/1000 strokes : +- 1.0

cm3/1000s.

Check tolerance : + 3.0

Spreed

Spreed	
Tolerance cm3/1000 strokes	: 8.0
Check tolerance cm3/1£000s.	: 12.0
Rated speed rpm	: 325
Rack travel in mm	7.20
Tolerance mm	: + 0.10
Del. quantity cm3/1000 strokes	: 27.0
Tolerance	. 21.0
cm3/1000 strokes	: + 2.0
Check tolerance	: + 4.5
cm3/1000s. Spreed	; 4.5
Tolerance	
cm3/1000 strokes	: 4.0
Check tolerance cm3/1000s.	: 6.5
CINO7 10000.	. 0.5
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP
GUIDE SLEEVE POSI	TION
GUIDE SLEEVE POSI control lever position degree Rated speed rpm	
control lever position degree Rated speed rpm	: - 1 : 1305
control lever position degree Rated speed rpm Rack travel in mm	: - 1 : 1305
control lever position degree Rated speed rpm Rack travel in mm	: - 1 : 1305 : 13.25
control lever position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER	: - 1 : 1305 : 13.25 : + 1.30 Y AT FULL LOAD STOP
control lever position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm	: - 1 : 1305 : 13.25 : + 1.30
control lever position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER	: - 1 : 1305 : 13.25 : + 1.30 Y AT FULL LOAD STOP
control lever position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity	: - 1 : 1305 : 13.25 : + 1.30 Y AT FULL LOAD STOP : 750 : 1200
control lever position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes	: - 1 : 1305 : 13.25 : + 1.30 Y AT FULL LOAD STOP : 750 : 1200
control lever position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance	: - 1 : 1305 : 13.25 : + 1.30 Y AT FULL LOAD STOP : 750 : 1200 : 150.0
control lever position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: - 1 : 1305 : 13.25 : + 1.30 Y AT FULL LOAD STOP : 750 : 1200 : 150.0 : + 1.0
control lever position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/10/00 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: - 1 : 1305 : 13.25 : + 1.30 Y AT FULL LOAD STOP : 750 : 1200 : 150.0
control lever position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed	: - 1 : 1305 : 13.25 : + 1.30 Y AT FULL LOAD STOP : 750 : 1200 : 150.0 : + 1.0
control lever position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/10/00 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: - 1 : 1305 : 13.25 : + 1.30 Y AT FULL LOAD STOP : 750 : 1200 : 150.0 : + 1.0
control lever position degree Rated speed rpm Rack travel in mm Tolerance mm FULL LOAD DELIVER Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: - 1 : 1305 : 13.25 : + 1.30 Y AT FULL LOAD STOP : 750 : 1200 : 150.0 : + 1.0 : + 3.0

CONTROL LEVER	
control lever position degree tolerance degree	: 123.0 : + 6.0
RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 13.25 : 1205 : + 15
rack travel mm Rated speed rpm Tolerance 1/min	
rack travel mm Tolerance mm Rated speed rpm	0.50
LOW IDLE	
LOW IDEE	
control lever position degree	: 79.0
position degree tolerance degree	: + 6.0
tolerance degree Setting point w/o	
	out bumper spring
Setting point w/o	out bumper spring
Setting point w/o	out bumper spring : 275
Setting point w/o Rated speed rpm CRT mm min.	eut bumper spring : 275 : > 8.00
Setting point w/o Rated speed rpm CRT mm min. Testing: Rated speed rpm rack travel mm	: 275 :> 8.00 : 325 : 7.20 : + 0.10
Setting point w/o Rated speed rpm CRT mm min. Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm	: 275 :> 8.00 : 325 : 7.20 : + 0.10
Setting point w/o Rated speed rpm CRT mm min. Testing: Rated speed rpm rack travel mm Tolerance mm Rated speed rpm TORQUE CONTROL Rated speed rpm rack travel mm	: 275 : > 8.00 : 325 : 7.20 : + 0.10 : 405 : 750 : 13.55 : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm 1150 Pressure hPa 1200 : 14.15 rack travel mm Tolerance ma : +- 0.10

Rated speed rpm 1150 Pressure hPa 11.60 rack travel mm Tolerance ma : + 0.20

MEASUREMENT

1150 Rated speed rom

500 Pressure hPa : rack travel mm 13,50 : +~ 0.20 Tolerance mm

230 Pressure hPa rack travel num 12.20 Tolerance mm : +~ 0.05

Start interlock

Rated speed rpm : > 100 Rated speed rpm : < 280

Check

speed 1/min : > 80 Check

speed 1/min : < 290

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1200 Rated speed rpm 1150 Del. quantity

cm3/1000 strokes : 163.0

Tolerance

cm3/1000 strokes : +-2.0 Check tolerance

cm3/1000s.: +-4.0 Spreed

Tolerance

8.0 cm3/1000 strokes :

Check tolerance

cm3/1000s. 12.0 rack travel mm : 13.10 Tolerance mm : + 0.20

Aneroid pressure

hPa Rated speed rpm 1150

Del. quantity

cm3/1000 strokes : 100.0

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.0

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm 21.00 : **←** 0.50 Tolerance mm

Del. quantity

cm3/1000 strokes : 140.0

Tolerance

cm3/1000 strokes : +- 20.0

Check tolerance

cm3/10COs. : ← 25.0

LOW IDLE

Rated speed rpm : 325

Rack travel in mm : 7.20 : +-Tolerance mm 0.10 Del. quantity cm3/1000 strokes : 27.0 Tolerance cm3/1000 strokes : +-2.0

Check tolerance cm3/1000s. - -4.5

Spreed Tolerance

cm3/1000 strokes : 4.0

Check tolerance

cm3/1000s.6.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.02.95 Test oil : ISO 4113

Combination No. : 9 410 080 514

Injection pump

Pump designation : PFR3K80A521 EP type number : 9 410 080 514

Governor

Governer design. : Governer no.

Cust. part No. :

Customer-spec. information Customer : YANFAR : BTD 33 Motor : 28.0 Power KW

TEST BENCH REQUIREMENTS

Test oil inlet

tempo. °C Tolerance °C

Inlet press. bar : 1.0 : + 0.1 Tolerance bar

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 : 600 x length mm

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

26.5 Test pressure bar : Tolerance bar : + 1.5

Prestroke mm 2.65 : +- 0.05 Tolerance mm Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 9.00

Del. quantity cm3/1000 strokes : 40.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. ; +-2.0

Spreed

Tolerance

cm3/1000 strokes : 2.0

Check tolerance cm3/1000s. 3.0

Rack travel in mm: 6.50

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

FULL LOAD DELIVERY AT FULL LOAD STOP

Rated speed rpm : 1000 Aneroid pressure hPa Del. quantity cm3/1000 strokes : 40.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 2.0 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance cm3/1000s. 3.0

LOW IDLE

Testing:

Rated speed rpm : 450 rack travel mma : 6.50

TORQUE CONTROL

Rated speed rpm : 1000 rack travel ma : 9.00

Rated speed rpm : 1300 rack travel mm : 9.00

Rated speed rpm : 1000 rack travel mm : 6.50

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa Rated speed rpm 1300 Del. quantity cm3/1000 strokes : 41.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 3.0 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance

4.0

Aneroid pressure		
hPa	:	-
Rated speed rpm	:	1000
rack travel mm	:	6.50
Del. quantity		
cm3/1000 strokes	:	21.5
Tolerance		
cm3/1000 strokes	: +	- 3.0
Check tolerance		
cm3/1000s.	: +	- 4.0
Spreed		
Tolerance		
cm3/1000 strokes	:	3.0
Check tolerance		
cm3/1000s.	:	4.0

LOW IDLE

Rack travel in mm: 6.50

End of test specification sheet

cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 03.01.95 Test oil : ISO 4113

Combination No. : 9 410 080 524

Injection pump

Pump designation : PFR2K75A490 EP type number : 9 410 080 524

Governor

Governer design. : Governer no. :

Cust. part No.

Customer—spec. information Customer : YANMAR Motor : BT22

Motor : BT22 Power KW : 16.2

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Inlet press. bar : 1.0 Tolerance bar : + 0.1

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.5
Tolerance bar : + 1.5

Prestroke mm : 2.45
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50

BASIC SETTING

Rated speed rpm : 1500

Del. quantity cm3/1000 strokes : 28.5

Tolerance

cm3/1000 strokes : \leftarrow 0.5

Check tolerance cm3/1000s. : + 1.5

Spreed

Tolerance

cm3/1000 strokes : 2.0

Check tolerance

cm3/1000s. : 3.0

Rack travel in mm : 9.00

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

FULL LOAD DELIVERY AT FULL LOAD STOP

Rated speed rpm Aneroid pressure	:	1	500
hPa	:		-
Del. quantity			
cm3/1000 strokes	:		28.5
Tolerance			
cm3/1000 strokes	:	+-	0.5
Check tolerance			
cm3/1000s.	:	+-	1.5
Spreed			
Tolerance			
cm3/1000 strokes	:		2.0
Check tolerance			_
cm3/1000s.	:		3.0

LOW IDLE

Testing:

Rated speed rpm : 200 rack travel mm : 9.00

TORQUE CONTROL

Rated speed rpm : 1500

Rated speed rpm : 1000 rack travel mm : 6.00

Rated speed rpm : 1000 rack travel max : 9.00

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa Rated speed rpm 1000 Del. quantity cm3/1000 strokes : 9.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s.4.0 Spreed Tolerance cm3/1000 strokes: 3.0 Check tolerance cm3/1000s.4.0

Aneroid pressure

Rated speed rpm : 1000 rack travel mm : 9.00

Del. quantity		
cm3/1000 strokes	:	30.0
Tolerance		
cm3/1000 strokes	: +-	4.0
Check tolerance		
cm3/1000s.	: +-	6.0
Spreed		
Tolerance		
cm3/1000 strokes	:	3.0
Check tolerance		
cm3/1000s.	:	4.0

LOW IDLE

Rack travel in mm: 9.00

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 15.02.95 Test oil : ISO 4113

Combination No. : 9 410 080 528

Injection pump

Pump designation : PFR3K80A521 EP type number : 9 410 080 528

Governor

Governer design. : Governer no. :

Cust. part No. :

Customer spec. information Customer : YANMAR Motor : BTD 33 Power KW : 28.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40
Tolerance °C : ← 2.0

Inlet press. bar : 1.0 Tolerance bar : + 0.1

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600 **REMARKS**

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.5
Tolerance bar : + 1.5

Prestroke mm : 2.65
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 9.30

Del. quantity

cm3/1000 strokes : 40.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s.

000s. : ← 2.0

Spreed

Tolerance

cm3/1000 strokes : 2.0

Check tolerance

cm3/1000s. : 3.0

Rack travel in mm : 6.50

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

FULL LOAD DELIVERY AT FULL LOAD STOP

Rated speed rpm Aneroid pressure	: 10	000
hPa	:	-
Del. quantity		
cm3/1000 strokes	:	40.0
Tolerance		
cm3/1000 strokes	: +-	1.0
Check tolerance		
cm3/1000s.	: +-	2.0
Spreed		
Tolerance		
cm3/1000 strokes	:	2.0
Check tolerance		
cm3/1000s.	:	3.0

LOW IDLE

Testing:

Rated speed	rpa	:	45 C
rack travel	trent.	:	6.50

TORQUE CONTROL

Rated speed	rpa	:	1000
rack travel	linen.	:	9.00

Rated speed rpm : 1300 rack travel mm : 9.00

Rated speed rpm : 1000 rack travel mm : 6.50

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa	:	-
Rated speed rpm Del. quantity	:	1300
cm3/1000 strokes Tolerance	:	41.5
cm3/1000 strokes Check tolerance	: +	2.0
cm3/1000s. Spreed	: +	3.0
Tolerance cm3/1000 strokes Check tolerance	:	3.0
cm3/1000s.	:	4.0

Aneroid pressure		
hPa	:	_
Rated speed rpm	:	1000
rack travel mm	:	6.50
Del. quantity		
cm3/1000 strokes	:	21.5
Tolerance		
cm3/1000 strokes	: +	3.0
Check tolerance		
cm3/1000s.	: +-	4.0
Spreed		
Tolerance		
cm3/1000 strokes	:	3.0
Check tolerance		
cm3/1000s.	:	4.0

LOW IDLE

Rack travel in mm: 6.50

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 11.06.96 Test oil : ISO 4113

Combination No. : 0 414 171 071

Injection pump

Pump designation : PFR1K70A544 EP type number : 0 414 171 071

Governor

Governer design. : Governer no. :

Cust. part No. : 7006 008 049 00 9

Customer spec. information Customer : AGRALE Motor : M 90 Power KW : 9.5

TEST BENCH REQUIREMENTS

Test oil inlet

temp. *C : 40 Tolerance *C : +- 2.0

Inlet press. bar : 1.0
Tolerance bar : + 0.1

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.5 Tolerance bar : +- 1.5

Prestroke mm : 2.15
Tolerance mm : + 0.05
Check
talerance mm : - 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 12.00

Del. quantity cm3/1000 strokes : 55.0

Tolerance cm3/1000 strokes : +- 8.0

Check tolerance cm3/1000S. : +- 9.0

Rated speed rpm : 200 Del. quantity

cm3/1000 strokes : 26.0

Tolerance

cm3/1000 strokes : + 7.0

Check tolerance

cm3/1000s. : +- 8.0

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

FULL LOAD DELIVERY AT FULL LOAD STOP

Rated speed rpm : 1000 Aneroid pressure

hPa

Del. quantity

cm3/1000 strokes : 55.0

Tolerance

cm3/1000 strokes : +-8.0

Check tolerance cm3/1000s.

9.0

TORQUE CONTROL

Rated speed rpm : 1000 12.00 rack travel and :

LOW IDLE

Rated speed rpm 200

Del. quantity

cm3/1000 strokes : 26.0

Tolerance

cm3/1000 strokes : + 7.0

Check tolerance

cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 10.02.88 : ISO 4113 Test oil

Combination No. : 0 401 876 754

Injection pump

Pump designation : PE6P110A320RS3152 EP type number : 0 411 816 746

Governor

Governer design. : RSV200...1100P1A515

: 0 421 833 293 Governer no.

Cust. part No.

Customer-spec. information

Customer : VOLVO-PENTA Motor : TD100G

TEST BENCH REQUIREMENTS

Inlet line

Test oil inlet

temp. °C Tolerance *C : +- 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter : 6.0 x inside diameter : 1.5 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar

Prestroke mm 3.55 : + 0.05 Tolerance mm Check

tolerance mm : **←** 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

: 1-5- 3- 6- 2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Del. quantity cm3/1000 strokes : 173.0

Tolerance

cm3/1000 strokes : ← 1.0

Check tolerance

cm3/1000s. : + 4.0

Spreed

Tolerance

cm3/1000 strokes :

4.0

7.5

Check tolerance

cm3/1000s.

		1
		control lever
Rated speed rpm	: 250	<pre>position degree : 112.0 tolerance degree : + 4.0</pre>
Rack travel in mm		+
Tolerance ma	: - 0.10	+ RATED SPEED
Del. quantity cm3/1000 strokes	: 21.0	+ rack travel mm : 11.60 + Rated speed rpm : 1125
Tolerance	. 21.0	Tolerance 1/min : +- 5
cm3/1000 strokes	: 2.0	+
Check tolerance		rack travel mm : 4.00
cm3/1000s.	: ← 4.5	Rated speed rpm : 1185
Spreed Tolerance		Tolerance 1/min : + 15
cm3/1000 strokes	: 4.5	rack travel mm : 0.85
Check tolerance	• 4.5	Tolerance mm : + 0.55
cm3/1000s.	: 7.5	Rated speed rpm : 1300
		1
(B) SETTING OF IN	LIECTION DIMED	<u>†</u>
WITH GOVERNOR	ACCITOR LOW	I
		LOW IDLE
CUIDE OF FELLE DOOR	77.014	}
GUIDE SLEEVE POSI	.11ON	control lever
		+ position degree : 76.0 + tolerance degree : + 4.0
control lever		T coterance degree : 4.0
position degree	: - 3	Setting point w/out bumper spring
Rated speed rpm		+
,		Rated speed rpm : 250
Rack travel in mo		+ rack travel mm : 4.20
Tolerance mm	: ← 0.20	Tolerance mm : +- 0.10
governor spring		Rated speed rpm : 100
pre-tension		+
click setting x	: 5.25	Testing:
		Rated speed rpm : 250
FULL LOAD DELIVER	Y AT FULL LOAD STOP	rack travel mm : 3.70
	-	+ Tolerance mm : +- 0.10
Rated speed rpm		†
Aneroid pressure		+ rack travel num : 2.00
hPa Del. quantity	: 1000	Rated speed rpm : 320
cm3/1000 strokes	• 173.0	† Tolerance 1/min : ← 30
Tolerance	. 175.0	I
cm3/1000 strokes	: + 1.0	
Check tolerance		ANEROID/ALTITUDE
cm3/1000s.	: ← 4.0	+ COMPENSATOR TEST
Spreed		+
Tolerance		†
cm3/1000 strokes	: 4.0	SETTING
Check tolerance cm3/1000s.	: 7.5	Poted aread : 500
CIRD/ 100003.	. (.3	+ Rated speed rpm : 500 + Pressure hPa : 1000
		+ Pressure hPa : 1000 + rack travel mm : 12.65
		+ Tolerance mm : + 0.05
CONTROL LEVER		+
		+ Rated speed rpm : 500

Pressure hPa : rack travel mm : 10.15
Tolerance mm : + 0.05

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 270
rack travel mm : 10.40
Tolerance mm : + 0.10

Pressure hPa : 580 rack travel mm : 12.45 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 700
hel guertity

Del. quantity

cm3/1000 strokes : 126.0

Tolerance

cm3/1000 strokes : + 1.5

Check tolerance

cm3/1000s. : + 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50

Del. quantity

cm3/1000 strokes : 185.0

Tolerance

cm3/1000 strokes : +- 15.0

Check tolerance

cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm : 250

Rack travel in mm : 3.70 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 21.0

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : +- 4.5

Spreed

Tolerance

cm3/1000 strokes : 4.5

Check tolerance

cm3/1000s. : 7.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 03.11.95 Test oil : ISO 4113

Combination No. : 9 400 230 103

Injection pump

Pump designation : PES6A100D320/3RS2691

: -2

EP type number : 9 410 230 028

Gavernor

Governer design. : RQV350...1100AB1227R

Governer no. : 9 420 231 015

Cust. part No. : 3912645

Customer-spec. information

Customer : CDC

Motor : 6 CT 8.3 Power K₩ : 156.6

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : ← 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05
Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

BASIC SETTING

Del. quantity

cm3/1000 strokes : 126.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 4.0

Check tolerance cm3/1000s. : 6.5

+	Rated speed rpm : 1100
	Aneroid pressure
Rated speed rpm : 350	hPa : 900 Del. quantity
Rack travel in mm : 5.50	cm3/1000 strokes : 126.5
Tolerance mm : + 0.10	Tolerance
Del. quantity	cm3/1000 strokes : + 1.0
cm3/1000 strokes : 20.0	Check tolerance
cm3/1000 strokes : +- 2.0 +-	cm3/1000s. : ← 3.0
Check tolerance	Spreed Tolerance
cm3/1000s. : + 4.5	cm3/1000 strokes : 4.0
Spreed	Check tolerance
Tolerance +	cm3/1000s. : 6.5
cm3/1000 strokes : 6.0	
Check tolerance	
cm3/1000s : 8.0	
Ī	CONTROL LEVER
(B) SEITING OF INJECTION PUMP	control lever
WITH GOVERNOR	position degree : 114.0
+	tolerance degree : + 4.0
GUIDE SLEEVE TRAVEL	RATED SPEED
Rated speed rpm : 350	rack travel mm: : 11.60
Rated speed rpm : 350 + guide sleeve +	Rated speed rpm : 1150 Tolerance 1/min : +- 5
travel mm : 1.40	Tolerance 1/min : +- 5
Tolerance mm : + 0.20	rack travel mm : 4.00
	Rated speed rpm : 1275
Rarced speed rpm : 1100	Tolerance 1/min : + 15
guide sleeve	
travel mm : 7.75	rack travel mm : 0.50
Toterance mm : + 0.05	Tolerance mm : + 0.50
Ratted speed rota : 1150	Rated speed rpm : 1350
Rated speed rpm : 1150 + guide sleeve +	
travel mm : 8.30	
Tolerance mm : + 0.30	
+	LOW IDLE
Rated speed rpm : 1290	
guide sleeve +	
travel mm : 9.80	control lever
Tolerance mm : + 0.30	position degree : 63.0
Rated speed rpm : 600	tolerance degree : +- 4.0
guide steeve	Testing:
travel mm : 4.20	resemig.
Tolerance mm : + 0.30 +	Rated speed rpm : 350
+	rack travel mm : 5.50 Tolerance mm : + 0.10
	Tolerance mm : ← 0.10
GUIDE SLEEVE POSITION +	
†	
control lever	ANEROID/ALTITUDE
position degree : -1	COMPENSATOR TEST
+	
FULL LOAD DELIVERY AT FULL LOAD STOP	SETTING
+	

Rated speed rpm Pressure hPa rack travel mm Tolerance mm	:	500 900 12.70 0.10
ated speed rpm ressure hPa ack travel mm olerance mm	:	500 - 10.20 - 0.10
EASUREMENT		
Rated speed rpm	:	500
Pressure hPa rack travel mma Tolerance mma	:	535 12.00 0.20
Pressure hPa rack travet mm Tolerance mm	: +-	405 10.95 0.05
Start interlock		
Rated speed rpm Rated speed rpm	: >	100 260
Check speed 1/min Check	: >	80
speed 1/min	: <	280
FUEL DELIVERY CHA	ARACTE	RISTICS
Aneroid pressure	:	_
Rated speed rpm	:	500
Del. quantity cm3/1000 strokes Tolerance	•	83.0
= -	: +	2.0
cm3/1000 strokes Check tolerance		

LOW IDLE Rated speed rpm : 350 Rack travel in mm: 5.50 Tolerance mm : +- 0.10 Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : +- 2.0Check tolerance cm3/1000s. : +- 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 8.0

End of test specification sheet

Rated speed rpm :

Tolerance mm Del. quantity

Check tolerance

Tolerance

cm3/1000s.

rack travel mm : 15.50

cm3/1000 strokes : 160.0

cm3/1000 strokes : + 10.0

100

: + 0.20

: +- 15.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 01.11.96 Test oil : ISO 4113

Combination No. : 9 410 080 504

Injection pump

Pump designation : PFR1K70A320/2 EP type number : 9 410 080 504

Governor

Governer design. : Governer no.

Cust. part No. :

Customer-spec, information Customer : KUBOTA Motor : T8 and T9 Power KW : 11.8

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Inlet press. bar : 1.0 Tolerance bar : + 0.1

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter: 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.5 Tolerance bar : +- 1.5

Prestroke mm 2.15 Tolerance mm : **←** 0.05 Check

tolerance man

Rack travel in mm: 9.00

: + 0.10

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 12.00

Dal. quantity

cm3/1000 strokes : 64.0

Tolerance

cm3/1000 strokes : +- 5.0

Check tolerance cm3/1000s. : **←** 7.0

Rack travel in mm:

6.00

(B) SETTING OF INJECTION PUMP WITH GOVERNOR

FULL LOAD DELIVERY AT FULL LOAD STOP

Rated speed rpm : 1000

Aneroid pressure

hPa

Del. quantity cm3/1000 strokes : 64.0 Tolerance cm3/1000 strokes : + 5.0 Check tolerance cm3/1000s. 7.0 LOW IDLE Testing: Rated speed rpm : 200 rack travel mm : 6.0 6.00 TORQUE CONTROL 1000 Rated speed rpm : 12.00 rack travel mm 1000 Rated speed rpm : rack travel mm : 6.00 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa Rated speed rpm : 1000 Del. quantity cm3/1000 strokes : 20.0 Tolerance $c_{m3}/1000$ strokes : + 5.0 Check tolerance cm3/1000s.: **←** 7.0 LOW IDLE Rack travel in mm: 6.00 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 01.11.96 : ISO 4113

Combination No. : 9 410 080 522

Injection pump

Pump designation: PFR1K55A473 EP type number : 9 410 080 522

60vernor

Governer design. : Governer no.

Cust. part No.

Customer-spec, information Customer : KUBOTA : AR (S) 70 Motor

Power KW

7.4

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C Tolerance °C 2.0

Inlet press. bar : 1.0 Tolerance bar 0.1

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

bar 173.5 Tolerance bar 1.5

Test lines : 1 680 750 014

Outside diameter :

x inside diameter: 2.0 600 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.5 Tolerance bar : **←** 1.5

Prestroke mm 1.95 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 12.00

Del. quantity

cm3/1000 strokes : 25.0

Tolerance

cm3/1000 strokes : \leftarrow 4.0

Check tolerance cm3/1000s.

: +-6.0

Rated speed rpm : 200

Rack travel in mm: 12.00

Del. quantity

cm3/1000 strokes : 21.0

Tolerance

cm3/1000 strokes : +-

Check tolerance

cm3/1000s. 6.0

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

FULL LOAD DELIVERY AT FULL LOAD STOP

Rated speed rpm 1000

Aneroid pressure

hPa

Del. quantity

cm3/1000 strokes : 25.0

Tolerance

cm3/1000 strokes : +-4.0

Check tolerance

cm3/1000s. 6.0

LOW IDLE

Testing:

Rated speed rpm : 200 12.00 rack travel mm

TORQUE CONTROL

Rated speed rpm : 1000 rack travel mm 12.00

Rated speed rpm : 1000 rack travel ma 9.00

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 1000

Del. quamity cm3/1000 strokes :

Tolerance

cm3/1000 strokes : +- 4.0

Check tolerance

cm3/1000s. : **←** 5.0

LOW IDLE

Rated speed rpm : 200

Rack travel in mm: 12.00

Del. quantity

cm3/1000 strokes : 21.0 Tolerance

cm3/1000 strokes : +-5.0

Check tolerance

cm3/1000s.6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 01.11.96 Test oil : ISO 4113

Combination No. : 9 410 080 527

Injection pump

Pump designation : PFR1K85A514 EP type number : 9 410 080 527

6overnor

Governer design. : Governer no.

Cust. part No. :

Customer-spec. information Customer : KUBOTA : AR/AS 220 Motor Power KW : 16.2

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C : 40 Tolerance °C : +- 2.0

Inlet press. bar : 1.0 Tolerance bar : + 0.1 Inlet press. bar :

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter: 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery guant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.5
Tolerance bar : + 1.5

Prestroke mm : 2.55
Tolerance mm : + 0.05 Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 12.00

Del. quantity cm3/1000 strokes : 92.0

Tolerance

cm3/1000 strokes : \leftarrow 5.0

Check tolerance

cm3/1000s. : +- 6.5

Rated speed rpm : 200

Rack travel in mm: 7.00

Del. quantity

cm3/1000 strokes : 15.5

Tolerance

cm3/1000 strokes : + 4.5

Check tolerance

cm3/1000s. : +- 5.5

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

FULL LOAD DELIVERY AT FULL LOAD STOP

Rated speed rpm : 1000 Aneroid pressure

hPa :

Del. quantity cm3/1000 strokes : 92.0

Tolerance cm3/1000 strokes : +- 5.0

Check tolerance

cm3/1000s. : + 6.5

LOW IDLE

Testing:

Rated speed rpm : 200 rack travel mm : 7.00

TORQUE CONTROL

Rated speed rpm : 1000 rack travel mm : 12.00

Rated speed rpm : 1000 rack travel mm : 7.00

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -

Rated speed rpm : 1000

Del. quantity

cm3/1000 strokes : 38.5

Tolerance

cm3/1000 strokes : +- 5.5

Check tolerance

cm3/1000s. : +- 6.5

LOW IDLE

Rated speed rpm : 200

Rack travel in mm: 7.00

Del. quantity

cm3/1000 strokes : 15.5

Tolerance

cm3/1000 strokes : +- 4.5

Check tolerance

cm3/1000s. : +- 5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 21.01.97 Test oil : ISO 4113

Combination No. : 0 402 648 932

Injection pump

Pump designation : PE8P120A320LS7849 EP type number : 0 412 628 864

Governor

Governer design. : RQV300...1050PA1034

Governer no. : 0 421 813 993

Cust. part No. :

Customer—spec. information
Customer : LIEBHERR
Motor : D 9308 TI
Power KW : 360.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 705

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 2.5 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.55
Tolerance mm : → 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50
Tolerance mm :

1.50

Firing order : 1-8-7-2-6 :-3-5-4

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 15.05 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 263.0

SHOT TOOD SET OKES . 203.E

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s.

m3/1000s. : +- 4.0

Spreed

Tolerance @m3/1000 strokes	5 : 5.0	control lever position degree : - 1
Check tolerance cm3/1000s.	: 9.0	Rated speed rpm : 1185
		Rack travel in mm: 14.00
Rated speed rpm	: 350	FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in m	ma: 5.30	TOLL LOAD DELIVERY AT FOLE LOAD STOP
Tolerance mm	: + 0.10	Rated speed rpm : 1050
Del. quantity	24.0	+ Aneroid pressure
cm3/1000 strokes Tolerance	;	+ hPa : 1500
cm3/1000 strokes	s : +- 3.0	+ Del. quantity + cm3/1000 strokes : 263.0
Check tolerance		+ Tolerance
cm3/1000s.	: +- 6.0	+ cm3/1000 strokes : + 1.0
Spreed		+ Check tolerance
Tolerance cm3/1000 strokes	s : 6.0	+ cm3/1000s. : $+$ 4.0
Check tolerance		+ Spreed + Tolerance
cm3/1000s.		+ cm3/1000 strokes : 5.0
		+ Check tolerance
(D) 0====110 0= =		+ cm3/1000s. : 9.0
(B) SETTING OF I WITH GOVERNOR	NUECITON PUMP	<u> </u>
GUIDE SLEEVE TRA	AVEI	- + CONTROL LEVER
SOLDE DEEELE TO	1455	- control lever
Rated speed rpm	: 780	position degree : 107.0
guide steeve		+ tolerance degree : +- 4.0
travel mm Tolerance mm	: 6.60 : +- 0.30	DATES COFFE
roterance mm	: 0.30	+ RATED SPEED + rack travel mm : 14.00
Rated speed rpm	: 350	Rated speed rpm : 1105
guide sleeve		+ Tolerance 1/min : +- 5
travel am	: 1.90	*
Tolerance mm	: + 0.20	rack travel mm : 4.00
Rated speed rpm	: 405	+ Rated speed rpm : 1215 + Tolerance 1/min : + 15
guide sleeve	. 403	T roceratice traiting . +- 15
travel mm	: 2.65	rack travel am : 0.70
Tolerance mma	: ← 0.25	† Tolerance mm : +- 0.70
Rated speed rpm	: 550	Rated speed rpm : 1300
guide sleeve	.))0	I
travel mm	: 4.40	
Tolerance mm	: + 0.20	
0-4-4 1	. 4440	+ LOW IDLE
Rated speed rpm guide sleeve	: 1118	†
travel mm	: 10.50	control lever
Tolerance mm	: + 0.10	position degree : 72.0 tolerance degree : + 4.0
GUIDE SLEEVE POS	ITION	+ Setting point w/out bumper spring
		+
		+ Rated speed rpm : 250

CRT mm min.	: > 8.50
Testing:	
Rated speed rpm rack travel mm Tolerance mms	: 350 : 5.30 : + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 460 : +- 30
Rated speed rpm	: 385
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1050 : 15.05 : + 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 700 : 1500 : 15.05 : ← 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 700 : - : 11.80 : ← 0.10
MEASUREMENT	
Rated speed rpm	: 700
Pressure hPa cack travel mm Tolerance mm	: 870 : 12.60 : ← 0.10
Pressure hPa rack travel mm Tolerance mm	: 1130 : 14.15 : + 0.05
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 270
Check speed 1/min Check	: > 80

FUEL DELIVERY CHA	RACT	TERISTICS	
Aneroid pressure hPa	:		
Rated speed rpm	:	700	

Pel. quantity
cm3/1000 strokes : 194.5
Tolerance
cm3/1000 strokes : + 1.0
Check tolerance
cm3/1000s. : + 4.0
Spreed
Tolerance
cm3/1000 strokes : 8.0
Check tolerance
cm3/1000 strokes : 8.0
Check tolerance
cm3/1000s. : 12.0

STARTING FUEL DELIVERY

ESS test: With 24 V solenoid activated, rack must reach start position in max. control lever setting.

Rated speed rpm rack travel mm	: 100 : 20.50
Toterance mm	: +- 0.50
Del. quantity cm3/1000 strokes Tolerance	: 165.0
cm3/1000 strokes	: + 10.0
Check tolerance cm3/1000S.	: + 14.0

TOM IDTE

Rated speed rpm	:		350
Rack travel in man Tolerance man Del. quantity	:	+-	5.30 0.10
cm3/1000 strokes Tolerance	:		21.0
cm3/1000 strokes Check tolerance	:	+	3.0
cm3/1000s. Spreed	:	+-	6.0
Tolerance cm3/1000 strokes	:		6.0
Check tolerance cm3/1000S.	:		10.0

speed 1/min : < 290

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 22.01.97 : ISO 4113

Combination No. : 0 400 836 029

Injection pump

Pump designation : PES6A95D410LS2542-1

EP type number : 0 410 896 912

Governor

Governer design. : RQ250/1100AB1137-2L

6overner no. : 0 420 200 084

Cust. part No. :

Customer-spec. information

Customer : MAN

Motor : D2566M/MF

Power KW : 177.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

Tolerance °C

: + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

: 173.5

Tolerance bar : **←** 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke num : 1.55
Tolerance num : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : → 0.75

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 12.05

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 125.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s.

: + 3.0

Spreed

Tolerance	rack travel mm : 11.00
cm3/1000 strokes : 3.0	- Rated speed rpm : 1153
	- Tolerance 1/min : +- 8
Check tolerance	- Total and Thinking . Total
cm3/1000s. : 6.0	- rack travel mm : 4.00
tho/ 10000.	Poted aread man 4.00
	- Rated speed rpm : 1220
1	Tolerance 1/min: + 15
Dated and 4 and 1	
Rated speed rpm : 250	- rack travel mm : 4.00
4	•
Rack travel in mm: 6.00	•
Tolerance mm : + 0.10	•
Del. quantity	
cm3/1000 strokes : 11.0	- LOW IDLE
Tolerance	•
cm3/1000 strokes : + 3.0	- Setting point w/out bumper spring
Check tolerance	-
cm3/1000s. : + 5.5	- Rated speed rpm : 100
Spreed	-
Tolerance	- CRT mm min. :> 7.50
cm3/1000 strokes : 3.0	- VIVI 1000 1011111
Check tolerance	- - Testing:
cm3/1000s. : 5.0	· resting.
CMS/ (0005	Poted and an address and according to
1	- Rated speed rpm : 250
(D) CETTING OF THE COTTON DUMP	rack travel mm : 6.00
(B) SETTING OF INJECTION PUMP	Tolerance mm : + 0.10
WITH GOVERNOR -	•
+	rack travel mm : 2.00
+	- kated speed rpm : 550
	- Tolerance 1/min : + 20
GUIDE SLEEVE POSITION	•
-	
+	- TORQUE CONTROL
control lever	- Rated speed rpm : 1100
position degree : -1	rack travel mm : 12.05
Rated speed rpm : 600	- Tolerance mm : + 0.05
· · · · · ·	•
Rack travel in mms: 16.00	- Rated speed rpm : 600
Tolerance man : + 0.40	
	rack travel mm : 12.10 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	
TOLE GOILD DELEVER THE TOLE LOTTED DIGITAL TOLES.	
.	Start interlock
Rated speed rpm : 1100	Start interlock
Rated speed rpm : 1100 Aneroid pressure	•
Rated speed rpm : 1100 Aneroid pressure hPa : -	Start interlock Rated speed rpm : > 100
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity	Rated speed rpm : > 100
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5	Rated speed rpm : > 100 Check
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5 Tolerance	Rated speed rpm : > 100
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5 Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : > 100 Check
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Rated speed rpm : > 100 Check speed 1/min : > 80
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0	Rated speed rpm : > 100 Check
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed	Rated speed rpm : > 100 Check speed 1/min : > 80
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance	Rated speed rpm : > 100 Check speed 1/min : > 80 FUEL DELIVERY CHARACTERISTICS
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.0	Rated speed rpm : > 100 Check speed 1/min : > 80 FUEL DELIVERY CHARACTERISTICS Aneroid pressure
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance	Rated speed rpm : > 100 Check
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.0	Rated speed rpm : > 100 Check
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance	Rated speed rpm : > 100 Check speed 1/min : > 80 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : - Rated speed rpm : 500
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance	Rated speed rpm : > 100 Check speed 1/min : > 80 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : - Rated speed rpm : 500 Del. quantity
Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 125.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.0 Check tolerance	Rated speed rpm : > 100 Check speed 1/min : > 80 FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa : - Rated speed rpm : 500

Tolerance cm3/1000 strokes : + 3.0 Check tolerance

cm3/1000s. : \leftarrow 5.5

Aneroid pressure

hPa : Rated speed rpm : 750
Del. quantity

cm3/1000 strokes : 114.5

Tolerance

cm3/1000 strokes : + 1.5

Check tolerance

cm3/1000s. : \leftarrow 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 14.70 Tolerance mm : + 0.30

Del. quantity

cm3/1000 strokes : 126.5

Tolerance

cm3/1000 strokes : \leftarrow 5.0

Check tolerance

cm3/1000s. : + 8.0

LOW IDLE

Rated speed rpm : 250

Rack travel in mm : 6.00 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 11.0

Tolerance

cm3/1000 strokes : \leftarrow 3.0

Check tolerance

cm3/1000s. : + 5.5

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s. : 5.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 12.02.97 : ISO 4113

Combination No. : 0 400 873 040

Injection pump

Pump designation : PES3A95D32ORS2810 EP type number : 0 410 893 997

Governor

Governer design. : RSV375...1175A2C2178

: -10R

Governer no. : 0 420 233 281.

Cust. part No. :

Customer-spec. information : VALMET Customer : 320 DS Motor Power KW : 55.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.55
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : ← 1.50

Firing order : 1- 2- 3

Tolerance Check : 0-120-240 : **←** 0.50

Check

tolerance *NW : **←** 0.75

Beginning of delivery differende

and maximum rack

travel 9.00 travel Tolerance mm : + - 0.50Difference " CS : 5.00

BASIC SETTING

Rated speed rpm : 1175

Rack travel in mm: 10.75 Tolerance m_1 : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 86.5

Tolerance

cm3/1000 strokes : +- 1.0

208

Check tolerance	+ Check tolerance
$cm3/1000s.$: \leftarrow 3.0	cm3/1000s. : +- 3.0
	Spreed
Spreed	Tolerance
opi eeu	
Teleman	+ cm3/1000 strokes : 3.5
Tolerance	+ Check tolerance
cm3/1000 strokes : 3.5	+ cm3/1000s. : 8.0
	+
Check tolerance	+
cm3/1000s. : 8.0	
	CONTROL LEVER
	T CONTINUE CEACH
	T control lover
Data di anno di mani di 275	control lever
Rated speed rpm : 375	position degree : 101.5
	tolerance degree : + 4.5
Rack travel in mm : 3.80	+
Tolerance mm : + 0.10	+ RATED SPEED
Del. quantity	frack travel mm : 9.70
cm3/1000 strokes : 11.5	Rated speed rpm : 1220
Tolerance	Tolerance 1/min : + 5
cm3/1000 strokes : +- 2.0	1 TOTAL MARKET TOTAL TOT
Check tolerance	Track travel mm : 4.00
cm3/1000s. : + 4.5	Rated speed rpm : 1285
Spreed	† Tolerance 1/min : + 15
Tolerance	+
cm3/1000 strokes : 5.5	+ rack travel mm : 0.85
Check tolerance	Tolerance mm : + 0.55
cm3/1000s. : 9.0	Rated speed rpm : 1440
	Traced speed (pill : 1440)
	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	
	Rated speed rpm : 1290
WITH GOVERNOR	Tolerance 1/min : + 15
	†
	†
	+
GUIDE SLEEVE POSITION	
	LOW IDLE
	1
control lever	1
position degree : -3	- control lever
Rated speed rpm : 800	
rated speed rpm . Oou	position degree : 75.0
Deal Angual in my a 0.50	tolerance degree : + 4.0
Rack travel in ma: 0.50	†
Tolerance mm : + 0.20	Setting point w/out bumper spring
	+
governor spring	Rated speed rpm : 375
pre-tension .	rack travel mm : 4.30
click setting x : 4.80	Tolerance mm : + 0.10
Transfer to the transfer to th	10(0) 00 100 100
	Rated speed rpm : 100
FULL LOAD DELIVEDY AT FULL LOAD STOP	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	007
	CRT mm min. : > 19.50
Rated speed rpm : 1175	†
Aneroid pressure	Testing:
hPa : -	<u> </u>
Del. quantity	f .
ver dualities :	Rated speed rom : 375
	Rated speed rpm : 375
cm3/1000 strokes : 86.5	rack travel mm : 3.80
cm3/1000 strokes : 86.5 Tolerance	Rated speed rpm : 375 rack travel mm : 3.80 Tolerance mm : + 0.10
cm3/1000 strokes : 86.5	rack travel mm : 3.80

Rated speed rpm Tolerance 1/min	: 450 : ← 3		
TOPOLE CONTROL			

TORQUE CONTROL		
Rated speed rpm	:	1175
rack travel am	:	10.75
Tolerance mm	: -	- 0.05

500 11,35
0.05
•

Rated speed rpm	:	990
rack travel mm	:	10.90
Tolerance mm	: +	- 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	_
Rated speed rpm	:	500
Del. quantity		
cm3/1000 strokes	:	75.0
Tolerance		

iolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.0

STARTING FUEL DELIVERY

Rated speed rpm rack travel mm	:	100 20.25
Tolerance mm	: +	- 0.75
Del. quantity cm3/1000 strokes	:	205.0

Cho/ 1000 Strokes	-	200	·U
Tolerance			
cm3/1000 ctnokes		 9	Λ

CM3/1UUU Strokes	: +-	8.0
Check tolerance		
cm3/1000s.	: +-	11.0

LOW IDLE

Rated	speed	rpm	:	375

Rack travel in mm	:	3.80
Tolerance mm	: +-	0.10
Del. quantity		
cm3/1000 strokes	:	11.5

CHIDA LOOK 2 CLOKES	•	1111
Tolerance		
cm3/1000 strokes	• +-	2.0

Tolerance		
cm3/1000 stroke	es : +-	2.0

Check tolerance cm3/1000s.	: +-	4.5
Spreed	•	7.2
Tolerance cm3/1000 strokes	•	5.5
Check tolerance cm3/1000s.	:	9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 06.03.97 : ISO 4113

Combination No. : 0 402 036 761

Injection pump

Pump designation : PES6P110A120RS3353

EP type number : 0 412 016 752

Governor

60/emer design. : RQV450...1100FA1253ki

Governer no.

: 0 421 815 474

Cust. part No. : 3926886

Customer-spec. information : CDC

Customer Motor

: 6CTA

Power KW

: 187.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar :

2.0

Tolerance bar

: :- 0.1

Test nozzle holde

assembly

: 1 688 901 103

Opening pressure

bar

208.5

Tolerance bar

: + 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : +-

Prestroke mm 3.60 : **←** 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

Barrel no.

: 1

Beginning of delivery differende

and maximum rack

travel

13.00

Difference ° CS : 1.20

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 13.15 Tolerance mm : + 0.05

	guide sleeve
Del. quantity cm3/1000 strokes : 200.0	travel mm : 13.50 Tolerance mm : +- 0.50
	Total drice man
Tolerance cm3/1000 strokes : + 1.0	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance cm3/1000s. : + 4.0	Rated speed rpm : 1000 Aneroid pressure
Spreed	hPa : 1200 Del. quantity
Tolerance	cm3/1000 strokes : 200.0 Tolerance
cm3/1000 strokes : 8.0	cm3/1000 strokes : +- 1.0 Check tolerance
Check tolerance cm3/1000s. : 12.0	cm3/1000s. : +- 4.0 Spreed
	Tolerance cm3/1000 strokes : 8.0 Check tolerance
Rated speed rpm : 500	cm3/1000s. : 12.0
Rack travel in mm: 6.20 Tolerance mm: + 0.20	
Del. quantity cm3/1000 strokes : 28.5	CONTROL LEVER
Tolerance	control lever
cm3/1000 strokes : + 3.0 + Check tolerance +	position degree : 115.0 tolerance degree : +- 6.0
cm3/1000s. : + 5.0	_
Spreed +	RATED SPEED rack travel mm : 11.40
cm3/1000 strokes : 4.0	Rated speed rpm : 1170
Check tolerance cm3/1800s. : 8.0	Tolerance 1/min : + 15
1	rack travel mm : 8.00
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1230 Tolerance 1/min : +- 5
WITH GOVERNOR	•
<u> </u>	rack travel mm : 0.50 Tolerance mm : + 0.50
GUIDE SLEEVE TRAVEL	Rated speed cpm : 1360
Rated speed rpm : 1214 guide sleeve	
travel mm : 8.09	
Tolerance mm : + 0.15	LOW IDLE
Rated speed rpm : 500 guide sleeve	control loven
travel mm : 1.82	control lever position degree : 79.0
Tolerance mm : ← 0.25	tolerance degree : + 6.0
Rated speed rpm : 890 guide steeve	Control lever difference Grad : 36.0
travel nam : 4.75	tolerance degree : + 6.0
Tolerance mm : + 0.25	Setting point w/out bumper spring
Rated speed rpm : 1570	Rated speed rpm : 400

CRT mma main.	: > 7.90	‡	Check speed 1/min	: < 390
Testing:		‡		
-		+	FUEL DELIVERY CHA	RACTERISTICS
Rated speed rpm	: 500	+		
rack travel mm Tolerance mm	: 6.20	+		
Tolerance m	: ← 0.20	+	Aneroid pressure	
		+	hPa	: 1200
Rated speed rpm	: 500	+	Rated speed rpm	: 750
		+	Del. quantity	
		 +	cm3/1000 strokes	: 189.5
TORQUE CONTROL		+	Tolerance	
Rated speed rpm	: 1000	+	cm3/1000 strokes	: ← 3.0
rack travel mm Tolerance mm	: 13.15	+	Check tolerance	
Tolerance mm	: ← 0.05	+	cm3/1000s.	: ← 6.0
		· 🗼	Spreed	
Rated speed rpm	: 750	1	Tolerance	
rack travel mm		1	cm3/1000 strokes	: 8.0
Tolerance mm	: ← 0.2N	1	Check tolerance	
		1	cm3/1000s.	• 12 0
Rated speed rpm	: 1100	\mathbf{I}	SINC/ YOUUS.	. 12.0
rack traval ma	• 12 50	T	<u></u>	
rack travel mm Tolerance mm	• • • • • • • • • • • • • • • • • • • •	Ţ	Aneroid pressure	
IO(CI CHILC INH	0.20	Ţ	Aneroia pressure	. 6200
		1	hPa Rated speed rpm	: 1200
ANUTOOTO /ALTITUOT		 †	Rated speed rpm	: 1100 : 12.50
ANEROID/ALTITUDE		†	rack travel mm Tolerance mm	: 12.50
COMPENSATOR TEST		†	Tolerance mm	: ← 0.20
		†	Del. quantity	
		+	cm3/1000 strokes	: 178.5
SETTING		+	Tolarance	
		+	cm3/1000 strokes	: ← 3.0
Rated speed rpm		+	Check tolerance	
Pressure hPa	: 1200	+	cm3/1000s.	: +- 6.0
		+		
Rated speed rpm	: 1 000			
Pressure hPa	: -	+	Aneroid pressure	
rack travel mm	: 10.55	+	hPa	: -
Tolerance mm		1	Rated speed rpm	: 1000
		4	Del. quantity	
MEASUREMENT		1	cm3/1000 strokes	· 121 በ
		1	Tolerance	
Rated speed rpm	: 1000	\perp	cm3/1000 strokes	· + 2 n
The speed this	. 1000	I	Check tolerance	. , 2.0
Pressure hPa	: 890	I	cm3/1000s.	: +- 4.0
rack travel mm	. 12 KN	I	UIID/ 10003.	· += 4.0
Tolerance mm	: +- 0.30	Ţ		
	. ,	T		
Dracelina hon	• 720	T	CTADTING CHEL AC	TURDY
Pressure hPa		†	STARTING FUEL DEL	TAFKI
rack travel mm		†	Dadad anis di an	. 400
Tolerance mm	: ← 0.20	†	Rated speed rpm	: 100
		†	rack travel mm Tolerance mm	: 21.00
N			iolerance mm	: ← 0.50
Start interlock		†	Del. quantity	
		†	cm3/1000 strokes	: 161.0
Rated speed rpm	: > 100	†	Tolerance	
Rated speed rpm	: < 380	+	cm3/1000 strokes	: ← 20.0
		+	Check tolerance	
Check		+	cm3/1000s.	: ← 25.0
speed 1/min	: > 80	+		
		•		

D13

LOW IDLE

Rated speed rpm	:		500
Rack travel in mm			6.20
Tolerance mm Del. quantity	:	+	0.20
cm3/1000 strokes	:		28.5
Tolerance			7.0
cm3/1000 strokes Check tolerance	: '		3.0
cm3/1000s.	:	+-	5.0
Spreed Tolerance			
cm3/1000 strokes	:		4.0
Check tolerance			
cm3/1000s.	•		8.6

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 01.02.84 Test oil : ISO 4113

Combination No. : 0 400 846 509

Injection pump

Pump designation : PES6A95D410LS2542 EP type number : 0 410 896 936

Governor

Governer design. : RQ250/1100AB1137-8L

Governer no. : 0 420 200 090

Cust. part No. :

Customer—spec. information Customer : MAN

Motor : D2566 MUH

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.0

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 1.55
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in man: 10.50
Tolerance man: + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 9.55
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 103.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

D15

	+ Tolerance 1/min : + 8
Check tolerance	+
cm3/1000s. : 6.0	frack travel mm : 4.00
	+ Rated speed rpm : 1230
	Tolerance 1/min : + 15
Rated speed rpm : 250	rack travel mm : 0.50
·	+ Tolerance mm : +- 0.50
Rack travel in mm: 7.00	+ Rated speed rpm : 1300
Tolerance mm : + 0.10	+
Del. quantity	+
cm3/1000 strokes : 12.0	+
Tolerance	
cm3/1000 strokes : +- 3.0	+ LOW IDLE
Check tolerance	†
cm3/1000s. : + 5.5	+ Setting point w/out bumper spring
Spreed	†
Tolerance : 3.5	+ Rated speed rpm : 100
Check tolerance	CDT 0 50
cm3/1000s. : 5.5	+ CRT mam main. :> 8.50
CHO/ (OUC)S	Testing:
	T resumg:
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 250
WITH GOVERNOR	+ rack travel mm : 7.60
	+ Tolerance mm : + 0.10
	+
	+ rack travel mm : 2.00
GUIDE SLEEVE POSITION	+ Rated speed rpm : 400
	+ Tolerance 1/min : + 20
	+
control lever	
control lever	TOPOLIE CONTROL
position degree : - 1	TORQUE CONTROL
_	+
position degree : - 1	Dimension a ma : 0.20
position degree : -1 Rated speed rpm : 600	Dimension a mm : 0.20 Rated speed rpm : 1100
position degree : -1 Rated speed rpm : 600 Rack travel in mm : 16.00	Dimension a mm : 0.20 Rated speed rpm : 1100
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40	Dimension a mm : 0.20 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05
position degree : -1 Rated speed rpm : 600 Rack travel in mm : 16.00	Dimension a mm : 0.20 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15
position degree : -1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700	Dimension a mm : 0.20 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600
position degree : -1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15 Tolerance mm : + 0.05
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : -	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 885
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 10.70
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 885
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 103.5	Dimension a mm
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 103.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 10.70 Tolerance mm : + 0.10 Rated speed rpm : 980 Rated speed rpm : 980 P80 P
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 103.5 Tolerance cm3/1000 strokes : + 1.0	Dimension a mm
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 103.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 10.70 Tolerance mm : + 0.10 Rated speed rpm : 980 Rated speed rpm : 980 P80 P
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 103.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 10.70 Tolerance mm : + 0.10 Rated speed rpm : 980 Rated speed rpm : 980 P80 P
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity cm3/1C00 strokes : 103.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 10.70 Tolerance mm : + 0.10 Rated speed rpm : 980 Rated speed rpm : 980 P80 P
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity cm3/1C00 strokes : 103.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Dimension a mm
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity cm3/1C00 strokes : 103.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 10.70 Tolerance mm : + 0.10 Rated speed rpm : 980 Rated speed rpm : 980 P80 P
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity cm3/1C00 strokes : 103.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Dimension a mm
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 103.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 10.70 Tolerance mm : + 0.10 Rated speed rpm : 980 rack travel mm : 9.85 Tolerance mm : 9.85 Tolerance mm : + 0.15
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity cm3/1C00 strokes : 103.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s : 6.0	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 10.70 Tolerance mm : + 0.10 Rated speed rpm : 980 rack travel mm : 9.85 Tolerance mm : 9.85 Tolerance mm : - 0.15
position degree : - 1 Rated speed rpm : 600 Rack travel in mm : 16.00 Tolerance mm : + 0.40 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 700 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 103.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0	Dimension a mm : 0.80 Rated speed rpm : 1100 rack travel mm : 9.55 Tolerance mm : + 0.05 Rated speed rpm : 600 rack travel mm : 11.15 Tolerance mm : + 0.05 Rated speed rpm : 885 rack travel mm : 10.70 Tolerance mm : + 0.10 Rated speed rpm : 980 rack travel mm : 9.85 Tolerance mm : 9.85 Tolerance mm : + 0.15

cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: : +-	92.0 1.5 4.0	
Aneroid pressure			-
hPa	:		
Rated speed rpm	:	500	
rack travel mm	:	10.70	
Tolerance mm	: +-	0.10	
Del. quantity cm3/1000 strokes	:	104.5	
Tolerance	•	104.5	
cm3/1000 strokes	: +-	2.0	
Check tolerance			
cm3/1000s.	: +-	4.0	
	·		
STARTING FUEL DEL	IVERY		
Raced speed rpm	:	100	
rack travel mm	:	14.70	
Tolerance mm	: +-	0.30	
Del. quantity	_	470.0	
cm3/1000 strokes Tolerance	:	130.0	
cm3/1000 strokes	: +-	5.0	
Check tolerance	• '	٥.0	
cm3/1000s.	: +-	8.0	
IOU TOLE			
LOW IDLE			
	•	250	
Rated speed rpm Rack travel in mm		7.00	
Rated speed rpm Rack travel in mm Tolerance mma			
LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity	: +-	7.00 0.10	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes		7.00	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance	: +-	7.00 0.10 12.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: +-	7.00 0.10	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: +-	7.00 0.10 12.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +-	7.00 0.10 12.0 3.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: +-	7.00 0.10 12.0 3.0 5.5	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: +-	7.00 0.10 12.0 3.0	
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance	: +-	7.00 0.10 12.0 3.0 5.5	

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 19.03.97 Test oil : ISO 4113

Combination No. : 0 400 876 440

Injection pump

Pump designation : PES6A90D410RS2757 EP type number : 0 410 896 086

Governor

Governer design. : RSV425...1075A1c2266

: -2L

Governer no. : 0 420 232 640

Cust. part No. : 99459159

Customer-spec. information

Customer : IVECO-FIAT Motor : 8065.25.035

Power KW : 104.0

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.30 Tolerance mm : +- 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : ← 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1075

Rack travel in mm : 12.90

Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 102.0

	1 Dal minutation
Tolerance	+ Del. quantity + cm3/1000 strokes : 102.0
$cm3/1000$ strokes : \leftarrow 1.0	Tolerance
Check tolerance	+ cm3/1000 strokes : + 1.0 + Check tolerance
cm3/1000s. : + 3.0	cm3/1000s. : + 3.0 + Spreed
Spreed	+ Tolerance
Tolerance	+ cm3/1000 strokes : 3.5 + Check tolerance
cm3/1000 strokes : 3.5	cm3/1000s. : 8.0
Check tolerance	+
cm3/1000s. : 8.0	CONTROL LEVER
	+
Rated speed rpm : 425	t control lever position degree : 121.0
, ,	tolerance degree : + 4.0
Rack travel in mm : 7.50 Tolerance mmm : + 0.10	TATES OPERS
Del. quantity	+ RATED SPEED + rack travel mm : 11.90
cm3/1000 strokes : 13.0	+ Rated speed rpm : 1120
Tolerance	+ Tolerance 1/min : + 5
cm3/1000 strokes : ← 2.0 Check tolerance	†
cm3/1000s. : +- 4.5	+ rack travel mm : 4.00 + Rated speed rpm : 1165
Spreed	+ Tolerance 1/min : + 15
Tolerance	+
cm3/1000 strokes : 5.5	+ rack travel mm : 0.85
Check tolerance cm3/1000s. : 9.0	Tolerance mm : +- 0.55 Rated speed rpm : 1340
	T Naced speed (pill : 1540
•••	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	+ Rated speed rpm : 1190
MILL GOAEGAOK	† Tolerance 1/min : ← 15
	‡
GUIDE SLEEVE POSITION	LOW IDLE
	T COW IDEE
control lever	+
position degree : - 3	control lever
Rated speed rpm : 800	position degree : 90.0 tolerance degree : +- 4.0
Rack travel in mm: 0.50	T coterance degree . +- 4.0
Tolerance mm : + 0.20	Setting point w/out bumper spring
governor_spring	Rated speed rpm : 425
pre-tension	rack travel mm : 7.00 Tolerance mm : + 0.10
click setting x : 4.50	Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 100
TOLL FORD DELIVERY AT TOLL COMP STOP	T CRT man min. : > 19.50
Rated speed rpm : 1075	+
Aneroid pressure hPa : 900	+ Testing:
hPa : 900	T 200 d 200 d 200

Rated speed rpm : 425

rack travel mm Tolerance mm	: 7.50 : ← 0.10
rack travel mm Rated speed rpm Tolerance 1/min	
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1075 : 12.90 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 700 : 13.10 : ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 12.95 : + 0.10
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: -
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa Fack travel mm Tolerance mm	: 430 : 12.20 : + 0.10
Pressure hPa rack travel mm Tolerance mm	: 500 : 12.55 : + 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 900 : 700 : 13.10 : + 0.10
cm3/1000 strokes Tolerance cm3/1000 strokes	

Check tolerance cm3/1000s.	: +- 4.0
Aneroid pressure hPa Rated speed rpm Del. quantity	: - : 500
cm3/1000 strokes Tolerance	: 68.0
cm3/1000 strokes Check tolerance	: +- 1.0
cm3/1000s.	: ← 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 100 : 20.25 : + 0.75
cm3/1000 strokes Tolerance	: 84.0
cm3/1000 strokes	: ← 7.5
Check tolerance cm3/1000s.	: + 10.0
LOW IDLE	
Rated speed rpm	: 425
Rack travel in man Tolerance man Del. quantity	: 7.50 : + 0.10
cm3/1000 strokes Tolerance	: 13.0
cm3/1000 strokes	: + 2.0
Check tolerance cm3/1000S. Spreed	: +- 4.5
Tolerance cm3/1000 strokes Check tolerance	: 5.5
cm3/1000s.	: 9.0
-	

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 10.11.95 Test oil : ISO 4113

Combination No. : 9 400 230 107

Injection pump

Pump designation : PES6A100D320/3RS2691

: -5

EP type number : 9 410 230 028

Governor

Governer design. : RQV350...1200AB1233R

Governer no. : 9 420 231 018

Cust. part No. : 3912643

Customer—spec. information Customer : C.D.C Motor : 6CT830 Power KW : 157.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Del. quantity

cm3/1000 strokes : 173.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s, : +- 3.0

Spreed

Tolerance

cm3/1000 strokes :

4.0

Check tolerance cm3/1000s.

6.5

†	
Rated speed rpm : 350	FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in mme: 4.70 Tolerance mm : + 0.10	Rated speed rpm : 1200 Aneroid pressure
Del. quantity cm3/1000 strokes : 19.0	hPa : 700 Del. quantity
Tolerance cm3/1000 strokes : + 2.0	cm3/1000 strokes : 113.5 Tolerance
Check tolerance cm3/1000s. : + 4.5	<pre>cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0</pre>
Tolerance Cm3/1000 strokes : 6.0	cm3/1000s. : +- 3.0 Spreed Tolerance
Check tolerance cm3/1000s. : 8.0	cm3/1000 strokes : 4.0 Check tolerance
	cm3/10COs. : 6.5
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	CONTROL LEVER
	CONTROL LEVER
GUIDE SLEEVE TRAVEL	control lever position degree : 93.0
Rated speed rpm : 1200 + guide sleeve + travel mm : 6.95	tolerance degree : +- 3.0
Tolerance mm : + 0.15	RATED SPEED rack travel mm : 9.80 Rated speed rpm : 1245
Rated speed rpm : 250 guide sleeve	Tolerance 1/min : +- 5
travel mm : 0.10 + Tolerance mm : → 0.10	rack travel mm : 4.00 Rated speed rpm : 1350
Rated speed rpm : 350 guide sleeve	Tolerance 1/min : + 15 rack travel mm : 0.50
travel mm : 1.25 Tolerance mm : + 0.25	Tolerance mm : +- 0.50 Rated speed rpm : 1400
Rated speed rpm : 450	
guide steeve + travet mm : 2.15 +	
Tolerance mm : + 0.25	LOW IDLE
Rated speed rpm : 1350 guide sleeve	control lever
travel mm : 8.45 Tolerance mm : + 0.25	position degree : 62.0 tolerance degree : + 3.0
GUIDE SLEEVE POSITION	Setting point w/out bumper spring
<u> </u>	Rated speed rpm : 250
control lever position degree : -1	CRT mm min. :> 8.00
Rated speed rpm : 1435	Testing:
Rack travel in mm : 8.00 + Tolerance mm : + 1.30 +	Rated speed rpm : 350 rack travel mm : 4.70

Tolerance mm	: ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 10.85 : ← 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 9.60 : + 0.10
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 345 : 10.50 : + 0.20
Pressure hPa rack travel mm Tolerance mm	: 260 : 9.95 : + 0.05
Start interlock	
Rated speed rpm Rated speed rpm	: > 100 : < 290
Check spæd 1/min Check	: > 80
speed 1/min	: < 300
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	
hPa Rated speed rpm	500
Del. quantity cm3/1000 strokes	: 87.5
Tolerance cm3/1000 strokes	: +- 2.0
Check tolerance cm3/1000s.	: +- 4.0

Rated speed rpm rack travel mm	:		100 20.00
Tolerance mm Del. quantity cm3/1000 strokes	:	+-	1.00
Tolerance cm3/1000 strokes	:	+-	10.0
Check tolerance cm3/1000s.	:	+-	15.0

LOW IDLE	
Rated speed rpm	: 350
Rack travel in mm Tolerance mm Del. quantity	: 4.70 : ← 0.10
cm3/1000 strokes Tolerance	: 19.0
cm3/1000 strokes Check tolerance	: ← 2.0
cm3/1000s. Spreed	: +- 4.5
Tolerance om3/1000 strokes Check tolerance	: 6.0
cm3/1000s.	: 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 17,04,97 Edition Test oil : ISO 4113

Combination No. : 0 400 866 122

Injection pump

Pump designation : PES6A90D320/3RS2660

EP type number : 0 410 896 078

Governor

6overner design. : RSV325...1200A002182

: -3R

: 0 420 233 212 Governer no.

Cust. part No. :

Customer-spec. information

Customer : MUM : TD2268-6 Motor Power KW : 123.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

bar Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 3.00 : + 0.05 Tolerance mm Check

tolerance mm : ← 0.10

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 1.50

Firing order : 1-5- 3- 6- 2-

Phasing : 0-60-120-130-240

: -300

Tolerance : **←** 0.50 Check

tolerance *NW : ← 0.75

Beginning of delivery differende

and maximum rack

9.00 travel Tolerance mm : +- 0.50 Difference ° CS : 4.00

BASIC SETTING

Rated speed rpm : 1180

Rack travel in mm: 11.65 : **←** 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 89.5

Tolerance 4	- Tolerance
cm3/1000 strokes : +- 0.5	- cm3/1000 strokes : +- 0.5
1	- Check tolerance
Check tolerance	
the state of the s	- cm3/1000s. : +- 2.5
cm3/1000s. : \leftarrow 2.5	Spreed
	- Tolerance
Spreed	- cm3/1000 strokes : 3.0
†	- Check tolerance
Tolerance	- cm3/1000s. : 4.5
cm3/1000 strokes : 3.0	•
	-
Check tolerance	
cm3/1000s. : 4.5	- CONTROL LEVER
<u> </u>	•
	- control lever
4	- position degree : 94.0
Rated speed rpm : 325	tolerance degree : + 4.0
Rack travel in mm: 6.70	- RATED SPEED
Tolerance mm : +- 0.10	rack travel mm : 10.60
Del. quantity	- Rated speed rpm : 1225
cm3/1000 strokes : 13.0	Tolerance 1/min : +- 5
Tolerance	Total arice Training . Ve 5
cm3/1000 strokes : + 3.0	rack travel mma : 4.00
Check tolerance	
cm3/1000s. : +- 5.0	Rated speed rpm : 1255
Spreed	Tolerance 1/min : +- 15
Tolerance	
	rack travel mm : 0.85
	Tolerance ma : +- G.55
Check tolerance	Rated speed rpm : 1435
cm3/1000s. : 4.0	•
†	rack travel mm : 4.00
	Rated speed rpm : 1275
(B) SETTING OF INJECTION PUMP	Tolarance 1/min : +- 15
WITH GOVERNOR +	•
†	•
†	•
GUIDE SLEEVE POSITION	· LOW IDLE
†	•
†	
control lever	control lever
position degree : -3	position degree : 67.0
Rated speed rpm : 800	tolerance degree : +- 4.0
†	
Rack travel in mm: 0.50	Setting point w/out bumper spring
Tolerance mm : + 0.20	
+	Rated speed rpm : 325
governor spring +	rack travel mm : 7.20
pre-tension +	Tolerance mm : + 0.10
click setting $x : 3.00$	
-	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. :> 19.50
-	· · · · · · · · · · · · · · · · · · ·
Rated speed rpm : 1180	Testing:
Aneroid pressure	en en en en en en en en en en en en en e
hPa : 700	Rated speed rpm : 325
Del. quantity	rack travel mm : 6.70
cm3/1000 strokes : 89.5	Tolerance mm : +- 0.10

rack travel mm Rated speed rpm Tolerance 1/min	: 515
TORQUE CONTROL	
Dimension a mai Rated speed rpm rack travel mm Tolerance mm	: 0.85 : 1180 : 11.65 : + 0.05
Rated speed rpm rack travel mm Tolerance mma	
rack travel mm Tolerance mm	: 12.70 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rom Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 12.45 : ← 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 10.45 : + 0.05
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 180 : 11.10 : +- 0.10
Pressure hPa rack travel mm Tolerance mm	: 320 : 11.85 : ← 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm	: 700 : 700
Del. quantity cm3/1000 strokes	: 94.0

Tolerance cm3/1000 strokes Check tolerance cm3/1000S.	: + 1.0 : + 3.5
rack travel mm Tolerance mm	: 12.10 : + 0.10
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 61.5
STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 100 : 20.25 : + 0.75
LOW IDLE	705
Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 28.04.97 Edition : ISO 4113 Test oil

Combination No. : 0 400 463 130

Injection pump

Pump designation : PES3A80D410/3RS1324

EP type number : 0 410 483 017

Governor

Governer design. : RSV325...1075A8C657L

Governer no. : 0 420 232 325

Cust. part No. :

Customer-spec. information : KHD Customer : F3L912 Motor

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

temp. °C 40 Tolerance *C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 1.95 : +- 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1- 3- 2

: U-120-240 Phasing Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1075

Rack travel in mm : 11.00 : + 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 50.5

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. : + 2.0

		1	
Spreed		- <u> </u>	
Tolerance cm3/1000 strokes :	2.5	Ī	CONTROL LEVER
	2.3	1	control lever
Check tolerance		- 1	position degree : 104.0
cm3/1000s. :	4.0	Ì	tolerance degree : + 4.0
-		- ‡	RATED SPEED
D. A	705	+	rack travel mm : 10.00
Rated speed rpm :	325	‡	Rated speed rpm : 1120 Tolerance 1/min : +- 5
Rack travel in mm:	8.90	+	
	← 0.10	+	rack travel mm : 4.00
Del. quantity	_	+	Rated speed rpm : 1175
cm3/1000 strokes :	12.5	+	Tolerance 1/min : +- 15
Tolerance cm3/1000 strokes :	. 45	†	mode Annual no.
Check tolerance	1.5	†	rack travel mm : 0.85
cm3/1000s.	→ 35	Ī	Tolerance mm : + 0.55 Rated speed rpm : 1300
Spreed		Į	Rated speed rpm : 1300
Tolerance	4.0	†	
cm3/1000 strokes :	4.0	†	
Check tolerance	4.5	†	LAUTALE
cm3/1000s. :	6.0	‡	LOW IDLE
(B) SETTING OF INJECTION OF THE CONTROL OF THE CONT	CTION PUMP	‡	control lever position degree : 71.0
		‡	tolerance degree : + 4.0
GUIDE SLEEVE POSITIO		+	Setting point w/out bumper spring
GOINE SCEENE LOSTING	A4	I	Rated speed rpm : 325
		I	rack travel mm : 8.40
control lever		1	Tolerance ma : + 0.10
	- 3	1	Total and the man
Rated speed rpm :		+	Testing:
Rack travel in mm :		Ţ	Rated speed rpm : 325
Tolerance mm :	← 0.20	+	rack travel mm : 8.90
		İ	rack travel mm : 8.90 Tolerance mm : + 0.10
FULL LOAD DELIVERY A	AT FULL LOAD STOP	Ŧ	rack travel mm : 2.00
Rated speed rpm :	1075	1	Rated speed rpm : 495 Tolerance 1/min : +- 30
Aneroid pressure	1075	" F	Toterance (/min : +- 30
hPa :	-	<i>"</i> †	TARALE CALERAL
Del. quantity	50 E	†	TORQUE CONTROL
cm3/1000 strokes : Tolerance	20.2	Ī	Rated speed rpm : 1075
cm3/1000 strokes :	← 0.5	Ī	rack travel mm : 11.00 Tolerance mm : + 0.05
Check tolerance	. 0.5	I	roceratice min : The U.U.
cm3/1000s. :	+ 2.0	I	Rated speed rpm : 900
Spreed	4.0	1	rack travel mm : 11.55
Tolerance		1	Tolerance mm : + 0.15
cm3/1000 strokes :	2.5	+	
Check tolerance		+	Rated speed rpm : 500
cm3/1000s. :	4.0	+	rack travel mm : 12.05
		•	

Tolerance ** : +- 0.05

FUEL DELIVERY CHARACTERISTICS

rack travel mm : 12.05 Tolerance mm : +- 0.05

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm : 20.25 Tolerance mm : **←** 0.75 Del. quantity

cm3/1000 strokes : 120.0 Tolerance

cm3/1000 strokes : +- 7.5

Check tolerance

cm3/1000s. : +- 10.0

LOW IDLE

Rated speed rpm : 325

Rack travel in mm : 8.90 Tolerance mai : **←** 0.10 Del. quantity cm3/1000 strokes : 12.5 Tolerance

cm3/1000 strokes : +-1.5

Check tolerance

cm3/1000s. 3.5

Spreed Tolerance

cm3/1000 strokes : 4.0

Check tolerance

cm3/100CS. 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 28.04.97 : ISO 4113 Test oil

Combination No. : 0 400 464 125

Injection pump

Pump designation : PES4A80D410/3RS1300

EP type number : 0 410 484 015

Governor

Governer design. : RSV325...1150A8C494

: -4L

Governer no. : 0 420 232 572

Cust. part No. :

Customer-spec, information Customer : KHD : F4L912 Motor Power KW : 51.0

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 922 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

bar 173.5 Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter: 6.0

x inside diameter : 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm Tolerance mm : 1.95 : **←** 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance m: \leftarrow 1.50

Firing order : 1-3-4-2

: 0-90-180-270 Phasina

Tolerance : ← 0.50 Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm: 10.50 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 50.5

Tolerance

cm3/1000 strokes : \leftarrow 0.5

Check tolerance cm3/1000s.

: +- 2.0

Spreed

E02

~ (
Tolorance	Ť
cm3/1000 strokes : 2.5	
	+ CONTROL LEVER
Check tolerance	+
cm3/1000s. : 4.0	+ control lever
	position degree : 107.0
	tolerance degree : + 4.0
	To to to a to a to a to a to a to a to a
Rated speed rpm : 325	RATED SPEED
	+ rack travel mm : 9.50
Rack travel in mm : 8,50	
Tolerance mm : + 0.10	
	Tolerance 1/min : + 5
Del. quantity	†
cm3/1000 strokes : 11.0	+ rack travel mm : 4.00
Tolerance	+ Rated speed rpm : 1245
cm3/1000 strokes : +- 1.5	+ Tolerance 1/min : + 15
Check tolerance	+
$cm3/1000$ s. : \leftarrow 3.5	+ rack travel mm : 0.85
Spreed	+ Tolerance mm : +- 0.55
Tolerance	+ Rated speed rpm : 1400
cm3/1000 strokes : 4.0	+
Check tolerance	
cm3/1000s. : 6.0	1
	+ LOW IDLE
(B) SETTING OF INJECTION PUMP	T LOW INCE
WITH GOVERNOR	T
MILL GOVERNOR	
	† control lever
	+ position degree : 74.0
	+ tolerance degree : +- 4.0
GUIDE SLEEVE POSITION	+
	Setting point w/out bumper spring
	<u>.</u> .
control lever	+ Rated speed rpm : 325
position degree : - 3	+ rack travel mm : 8.00
Rated speed rpm : 800	+ Tolerance mm : + 0.10
•	1
Rack travel in mm: 0.50	+ Testing:
Tolerence ms : + 0.20	Too trig.
1010101001001	Rated speed rpm : 325
	rack travel mm : 8.50
ENT LOAD DELTHEDY AT ENTLY DAD STOD	
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.10
Deted around name + 4450	T mak annual == 2.00
Reted speed rpm : 1150	rack travel ma : 2.00
Aneroid pressure	+ Rated speed rpm : 495
hPa : -	+ Tolerance 1/min : +- 30
Del. quantity	+
	<u> </u>
Del. quantity	TORQUE CONTROL
Del. quantity cm3/1000 strokes : 50.5	
Del. quantity cm3/1000 strokes : 50.5 Tolerance cm3/1000 strokes : +- 0.5	+ Rated speed rpm : 1150
Del. quantity cm3/1000 strokes : 50.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance	+ Rated speed rpm : 1150 + rack travel mm : 10.50
Del. quantity cm3/1000 strokes : 50.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0	+ Rated speed rpm : 1150
Del. quantity cm3/1000 strokes : 50.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed	+ Rated speed rpm : 1150 + rack travel mm : 10.50 + Tolerance mm : + 0.05
Del. quantity cm3/1000 strokes : 50.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance	Rated speed rpm : 1150 rack travel mm : 10.50 Tolerance mm : + 0.05 Rated speed rpm : 915
Del. quantity cm3/1000 strokes : 50.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5	Rated speed rpm : 1150 rack travel mm : 10.50 Tolerance mm : + 0.05 Rated speed rpm : 915 rack travel mm : 11.00
Del. quantity cm3/1000 strokes : 50.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance	Rated speed rpm : 1150 rack travel mm : 10.50 Tolerance mm : + 0.05 Rated speed rpm : 915
Del. quantity cm3/1000 strokes : 50.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5	Rated speed rpm : 1150 rack travel mm : 10.50 Tolerance mm : + 0.05 Rated speed rpm : 915 rack travel mm : 11.00 Tolerance mm : + 0.10
Del. quantity cm3/1000 strokes : 50.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance	Rated speed rpm : 1150 rack travel mm : 10.50 Tolerance mm : + 0.05 Rated speed rpm : 915 rack travel mm : 11.00 Tolerance mm : + 0.10 Rated speed rpm : 500
Del. quantity cm3/1000 strokes : 50.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance	Rated speed rpm : 1150 rack travel mm : 10.50 Tolerance mm : + 0.05 Rated speed rpm : 915 rack travel mm : 11.00 Tolerance mm : + 0.10 Rated speed rpm : 500 rack travel mm : 11.45
Del. quantity cm3/1000 strokes : 50.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance	Rated speed rpm : 1150 rack travel mm : 10.50 Tolerance mm : + 0.05 Rated speed rpm : 915 rack travel mm : 11.00 Tolerance mm : + 0.10 Rated speed rpm : 500

FUEL DELIVERY CHARACTERISTICS

rack travel mm : 11.45
Tolerance mm : + 0.05

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.25
Tolerance mm : + 0.75
Del. quantity
cm3/1000 strokes : 128.0
Tolerance
cm3/1000 strokes : + 7.5
Check tolerance

cm3/1000s. : \leftarrow 10.0

LOW IDLE

Rated speed rpm : 325 Rack travel in mm: 8.50 Tolerance mm : ← 0.10 Del. quantity cm3/1000 strokes : 11.0 Tolerance cm3/1000 strokes : + 1.5 Check tolerance cm3/100US. 3.5 : +-Spreed Tolerance cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. 6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 29.04.97 : ISO 4113

Combination No. : 0 400 846 597

Injection pump

Pump designation : PES6A90D410RS2813 EP type number : 0 410 896 089

Governor

Governer design. : RQV300...1250AB1264L

Governer no. : 0 420 212 233

Cust. part No.

Customer-spec. information

Motor

Customer : IVECO-FIAT : 8065.25.000

Power KW

: 145.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

: + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

: 173.5

Tolerance bar : +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm Tolerance mm : 2.80 : + 0.05

Check

tolerance me : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

: **←** 0.75 tolerance *NW

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 11.30

: **←** 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 77.0

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s.

: + 2.5

Spreed

Tol	erance
,,,,,,	CIBRE

cm3/1000 strokes : 3.0

Check tolerance cm3/1000s.

7.0

Rated speed rpm : 325

Rack travel in mm : 8.30 : + 0.10Tolerance mm

Del. quantity

cm3/1000 strokes : 13.0

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance cm3/1000s.

: +-4.0

Spreed

Toterance

cm3/1000 strokes :

Check tolerance cm3/1000s.

7.0

(B) SETTING OF INJECTION PUMP WITH GOVERNOR

GUIDE SLEEVE TRAVEL

Rated speed rpm 897

guide sleeve

travel mm Tolerance mm 5.25

: + 0.25

Rated speed rpm guide sleeve

300 :

travel mma

0.85

Tolerance man

: +- 0.25

Rated speed rpm

: 445

guide sleeve

2.45

travel mm Tolerance mm

: + 0.25

Rated speed row

54C

guide sleeve

travel ma Tolerance nm

3.05 : + 0.25

Rated speed rpm

1324

guide sleeve travel mm

8.25

Tolerance mm

: + 0.25

GUIDE SLEEVE POSITION

control lever

position degree

Rated speed rpm : 1455

Rack travel in mm: 10.90

Tolerance mm : **←** 1.30

FULL LOAD DELIVERY AT FULL LOAD STOP

Rated speed rpm 1250 :

Aneroid pressure

700 hPa

Del. quantity

cm3/1000 strokes : 77.0

Tolerance

cm3/1000 strokes : +- 0.5

Check tolerance

cm3/1000s. 2.5 : +-

Spreed

Tolerance

cm3/1000 strokes : 3.0

Check tolerance

cm3/1000s.7.0

CONTROL LEVER

control lever

105.0 position degree : tolerance degree : +- 4.0

RATED SPEED

10.30 rack travel mm Rated speed rpm 1320

Tolerance 1/min : +-

rack travel mm 4.00 Rated speed rpm 1435

Tolerance 1/min

rack travel mm 0.50 : + - 0.50Tolerance mm

Rated speed rpm : 1550

LOW IDLE

control lever

position degree : 79.0

tolerance degree : +-

Setting point w/out bumper spring

225 Rated speed rpm : CRT me min. :>10.00Testing: 325 Rated speed rpm : 8.30 rack travel mm Tolerance ma : + 0.10 Rated speed rpm : 425 TORQUE CONTROL 1250 Rated speed rpm rack travel mm : 11.30 Tolerance no : **←** 0.05 400 Rated speed rpm 12.85 rack travel mm : **←** 0.05 Tolerance mm Rated speed rpm 700 rack travel mm 12.30 : + 0.10 Tolerance mm Rated speed rps: 900 rack travel mm : 11.60 Tolerance ma : +- 0.15 ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rom : 400 700 Pressure hPa rack travel mm 12.50 Tolerance mm : + - 0.05400 Rated speed rpm Pressure hPa 10.80 rack travel mm : +- 0.05 Tolerance mm **MEASUREMENT** 400 Rated speed rpm 350 Pressure hPa : rack travel mm 12.10 Tolerance mm : + 0.10

Start interlock			
Rated speed rpm	: >	100	
Rated speed rpm	: <	220	
Check			
speed 1/min Check	; >	80	
speed 1/min	: <	250	
FUEL DELIVERY CHA	RACTER	ISTICS	
Aneroid pressure			-
hPa		700	
Rated speed rpm rack travel mm		700 12.30	
Toterance mm	: +-	0.10	
Del. quantity			
cm3/1000 strokes Folerance	:	80.0	
m3/1000 strokes	: +-	1.5	
Check tolerance			
m3/1000s.	: +-	3.5	
Aneroid pressure	···		-
nPa	:	_	
Rated speed rpm	•	500	
Del. quantity cm3/1000 strokes	:	51.5	
Tolerance	•		
	- 1	0.5	
cm3/1000 strokes	: +-		
m3/1000 strokes heck tolerance	: +-	2.5	
m3/1000 strokes heck tolerance	: +-	2.5	
m3/1000 strokes heck tolerance m3/1900s.	; +-	2.5	
cm3/1000 strokes check tolerance cm3/1000s.	: +- : +- IVERY	2.5	
m3/1000 strokes theck tolerance m3/1000s. TARTING FUEL DEL ESS test: With 1	? V so	 Lenoid	activa
m3/1000 strokes heck tolerance m3/1000s. TARTING FUEL DEL ESS test: With 1 rack must reach	? V so start	 Lenoid	activa n in m
m3/1000 strokes theck tolerance that 1000s. STARTING FUEL DEL ESS test: With 1	? V so start	 Lenoid	activa n in m
cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL ESS test: With 1 rack must reach	? V so start	 Lenoid	activa n in m
cm3/1000 strokes Check tolerance Cm3/1000s. STARTING FUEL DEL ESS test: With 1 rack must reach control lever se	? V so start tting.	lenoid positio	activa n in m
cm3/1000 strokes check tolerance cm3/1000s. STARTING FUEL DEL ESS test: With 1 rack must reach control lever se cated speed rpm cack travel mm	<pre>? V so start tting.</pre>	 Lenoid	activa n in m
cm3/1000 strokes check tolerance cm3/1000s. STARTING FUEL DEL ESS test: With 1 rack must reach control lever se cated speed rpm cack travel mm folerance mm	<pre>? V so start tting.</pre>	lenoid positio	activa n in m
cm3/1000 strokes check tolerance cm3/1000s. STARTING FUEL DEL ESS test: With 1 rack must reach control lever se cated speed rpm cack travel mm olerance mm bel. quantity	<pre>? V so start tting. : : : +-</pre>	lenoid position 100 20.50 1.00	activa n in m
ETARTING FUEL DEL ESS test: With 1 rack must reach control lever se eated speed rpm eack travel mm folerance mm	<pre>? V so start tting. : : : +-</pre>	lenoid position 100 20.50	activ

cm3/1000 strokes : \leftarrow 7.5

: + 10.0

Check tolerance

cm3/1000s.

Pressure hPa

rack travel mm

Tolerance mm

320

: + 0.05

11.65

LOW IDLE

Rated speed rpm	:		325
Rack travel in mma Tolerance mma	•	+-	8.30 0.10
Del. quantity cm3/1000 strokes	:		13.0
Tolerance cm3/1000 strokes Check tolerance	:	+	2.0
cm3/1000s.	:	+-	4.0
Tolerance cm3/1000 strokes	:		4.5
Check tolerance cm3/1000s.	:		7.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 29.04.97 : ISO 4113 Test oil

Combination No. : 0 400 873 038

Injection pump

Pump designation : PES3A80D410RS2790 EP type number : 0 410 883 011

6overnor

Governer design. : RSV325...900A7C602

: -1L

Governer no. : 0 420 232 388

Cust. part No. :

Customer-spec. information Customer : KHD

Motor : F3L912/W

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 606

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar

Test lines : 1 680 750 014

Outside diameter: 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 1.95 : + 0.05 Tolerance mm Check

tolerance mm : + 0.10

Rack travel in tam: 10.50 Tolerance m_1 : +- 1.50

Firing order : 1- 3- 2

Phasing : 0-120-240 Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 900

Rack travel in mm: 10.55 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 52.0

Tolerance

cm3/1000 strokes : +-0.5

Check tolerance

cm3/1000s. : + 2.0

Spreed

Tolerance

cm3/1000 strokes : 2.5

	+
Check tolerance cm3/1000s. : 4.0	CONTROL LEVER
	control lever
Rated speed rpm : 325	+ position degree : 103.0 tolerance degree : + 4.0
Rack travel in mm: 6.00	RATED SPEED
Tolerance mm : + 0.10	rack travel mm : 9.50
Del. quantity - cm3/1000 strokes : 10.0 -	+ Rated speed rpm : 945 - Tolerance 1/min : + 5
Tolerance -	+
cm3/1000 strokes : +- 3.0 Check tolerance	+ rack travel mm : 4.00 + Rated speed rpm : 970
cm3/1000s. : +- 4.5	+ Rated speed rpm : 970 + Tolerance 1/min : +- 15
Spreed -	+
Tolerance - cm3/1000 strokes : 2.0 -	†
Check tolerance -	
cin3/1000s. : 3.5	LOW IDLE
(B) SETTING OF INJECTION PUMP	+ control lever
WITH GOVERNOR	position degree : 71.0
-	tolerance degree : - 4.0
	Setting point w/out bumper spring
GUIDE SLEEVE POSITION -	Dated aread pro . 100
	Rated speed rpm : 100
control lever	CRT mm min. : > 19.50
position degree : - 3 Rated speed rpm : 800	Testing:
· · · · · · · · · · · · · · · · · · ·	tescing.
Rack travel in mm : 0.50 - Tolerance mm : : - 0.20	Rated speed rpm : 325
Tolerance ma : - 0.20	rack travel ma : 6.00 Tolerance mm : + 0.10
governor spring -	+
pre-tension - click setting x : 4.00 -	rack travel mm : 2.00 Rated speed rpm : 350
Territ Secting X . 4.00	Tolerance 1/min : + 30
FULL LOAD DELIVERY AT FULL LOAD STOP	SET IDLE AUXILIARY SPRING
-	
Rated speed rpm : 900 Aneroid pressure	Rated speed rpm : 100
hPa : Del. quantity -	TORQUE CONTROL
cm3/1000 strokes : 52.0	Rated speed rpm : 900
Tolerance -	rack travel mm : 10.55
cm3/1000 strokes : +- 0.5 Check tolerance	Tolerance mma : +- 0.05
cm3/1000s. : +- 2.0	Rated speed rpm : 500
Spreed - Tolerance -	rack travel mm : 10.60 Tolerance mm : + 0.10
cm3/1000 strokes : 2.5	- TOTE OF THE STATE
Check tolerance	}
cm3/1000s. : 4.0	-

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm 500 Del. quantity

cm3/1000 strokes : 47.5

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. 3.0

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel ma 20.25 Tolerance mm : **←** 0.75

Del. quantity

cm3/1000 strokes : 130.0

Tolerance

cm3/1000 strokes : +-5.0

Check tolerance

cm3/1000s. : +-8.0

LOW IDLE

Rated speed rpm 325

Rack travel in mm: 6.00 Tolerance ma : + 0.10 Del. quantity

cm3/1000 strokes : 10.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. 4.5

Spreed Tolerance

cm3/1000 strokes : 2.0

Check tolerance

cm3/1000s.3.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 30.04.97 Test oil : ISO 4113

Combination No. : 0 400 876 321

Injection pump

Pump designation : PES6A95D32ORS2684 EP type number : 0 410 896 917

Governor

Governer design. : RSV325...1050A0c2178

: -2R

Governer no. : 0 420 233 178

Cust. part No. :

Customer—spec. information Customer : VALMET Motor : 611D Power KW : 79.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.0

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.55
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

Beginning of delivery differende

Difference * OS : 5.00

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 7.95
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 66.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance	
$cm3/1000s.$: \leftarrow 3.0	‡
Spreed	— Ţ
Tolerance cm3/1000 strokes : 3.5	Ī
Check tolerance cm3/1000s. : 6.0	<u> </u>
Rated speed rpm : 325	<u> </u>
Rack travel in mm : 4.15 Tolerance mm : + 0.05	. ‡
Del. quantity cm3/1000 strokes : 15.0 Tolerance	‡
<pre>cm3/1000 strokes : + 2.0 Check tolerance cm3/1000S. : + 4.5</pre>	‡
Spreed Tolerance ca3/1000 strokes : 3.5	‡
Check tolerance cm3/1000S. : 5.5	‡
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	†
	Ŧ
GUIDE SLEEVE POSITION	— <u> </u>
control lever	
control lever position degree : - 3	T+++++++++++++++++++++++++++++++++++++
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00	
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STO Rated speed rpm : 1050 Aneroid pressure	
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STO	

Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: ← 3.0 : 3.5 : 6.0
CONTROL LEVER	
control lever position degree tolerance degree	: 44.0 : + 4.0
RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 6.90 : 1095 : + 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1145 : ← 15
rack travel num Tolerance num Rated speed rpm	: 0.85 : + 0.55 : 1295
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1150 : + 15

LOW IDLE

control lever
position degree : 26.0
tolerance degree : ← 4.0

Setting point w/out bumper spring

Rated speed rpm : 325
rack travel mm : 4.70
Tolerance mm : + 0.10

Testing:

Rated speed rpm : 325
rack travel mm : 4.15
Tolerance mm : + 0.05

rack travel mm : 2.00
Rated speed rpm : 450
Tolerance 1/min : +- 30

TORQUE CONTROL

Dimension a mm : 0.70 Rated speed rpm : 1050 rack travel mm : 7.95 Tolerance mm : +- 0.05

Rated speed rpm : 500 rack travel mm 8.65 Tolerance mm : ← 0.05

Rated speed rpm : rack travel mm : 0.00 :+ 0.10 840

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa 500 Rated speed rpm Del. quantity

cm3/1000 strokes : 58.5

Tolerance

cm3/1000 strokes : \leftarrow 1.5

Check tolerance

cm3/1000s. : **←** 4.0

Aneroid pressure

hPa rack travel ram : 8.30 : **←** 0.10 Tolerance mm

STARYING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25
Tolerance mm : + 0.75

LOW IDLE

325 Rated speed rpm :

Rack travel in mm: 4.15 : **←** 0.05 Tolerance mm Del. quantity

cm3/1000 strokes : 15.0

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

: +- 4.5 cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes :

Check tolerance

cm3/1000s. 5.5

3.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 30,04,97

Test oil

: ISO 4113

Combination No. : 0 400 876 349

Injection pump

Pump designation : PES6A90D410RS2757

EP type number : 0 410 896 086

Governor

Governer design. : RSV425...1000A1c2233

Governer no.

: 0 420 232 496

Cust. part No. :

Customer-spec. information

Customer

: IVECO-FIAT

Motor

: 8065.25.080

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

40

Tolerance °C

: +- 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

: 173.5

Tolerance bar

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

26.0 Test pressure bar :

Tolerance bar : + 1.0

Prestroke mm : 2.30
Tolerance mm : + 0.05 : + 0.05 Tolerance mm

Check

tolerance am : + 0.10

Rack travel in mm : 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolorance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 11.85

: **←** 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 90.5

Tolerance

cm3/1000 strokes : + 0.5

Check tolerance

cm3/1000s.

: +- 2.5

Spreed

Tolerance cm3/1000 strokes : 3.0	Check tolerance cm3/1000s. : 5.0
Check tolerance cm3/1000s. : 5.0	<u> </u>
	CONTROL LEVER
Rated speed rpm : 475	<pre>+ control lever + position degree : 105.5 + tolerance degree : +- 4.5</pre>
Rack travel in mm: 6.70	+
Tolerance mm : +- 0.10 Del. quantity	+ RATED SPEED + rack travel mm : 10.80
cm3/1000 strokes : 13.0	Rated speed rpm : 1045
Tolerance	+ Tolerance 1/min : + 5
cm3/1000 strokes : + 3.0	+
Check tolerance cm3/1000s. : +- 5.0	+ rack travel mm : 4.00
Spreed	+ Rated speed rpm : 1105 + Tolerance 1/min : + 15
Tolerance	Total and the first the second
cm3/1000 strokes : 2.5	rack travel mm : 0.85
Check tolerance	+ Tolerance mm : + 0.55
cm3/1000s. : 4.5	Rated speed rpm : 1240
	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	+ Rated speed rpm : 1155
WITH GOVERNOR	+ Tolerance 1/min : + 15
GUIDE SLEEVE POSITION	LOW IDLE
control lever	+
position degree : - 3 Rated speed nom : 800	+ control lever - position degree : 81.0
nated speed failth. Sed	tolerance degree : + 4.0
Rack travel in mm : 0.50	Total digital in the
Tolerance mm : + 0.20	Setting point w/out bumper spring
	Setting point w/out bumper spring
governor spring	Setting point w/out bumper spring Rated speed rpm : 475
	Setting point w/out bumper spring
governor spring pre-tension	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 7.20 Tolerance mm : + 0.10
governor spring pre-tension	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 100
governor spring pre-tension click setting x : 4.70 FULL LOAD DELIVERY AT FULL LOAD STOP	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 7.20 Tolerance mm : + 0.10
governor spring pre-tension click setting x : 4.70 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 100
governor spring pre-tension click setting x : 4.70 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 800	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing:
governor spring pre-tension click setting x : 4.70 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 800 Del. quantity	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing: Rated speed rpm : 475
governor spring pre-tension click setting x : 4.70 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 800	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing: Rated speed rpm : 475
governor spring pre-tension click setting x : 4.70 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 90.5 Tolerance cm3/1000 strokes : + 0.5	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 475 rack travel mm : 6.70 Tolerance mm : + 0.10
governor spring pre-tension click setting x : 4.70 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 90.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 475 rack travel mm : 6.70 Tolerance mm : + 0.10 rack travel mm : 2.00
governor spring pre-tension click setting x : 4.70 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 90.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.5	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 475 rack travel mm : 6.70 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 640
governor spring pre-tension click setting x : 4.70 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 90.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 475 rack travel mm : 6.70 Tolerance mm : + 0.10 rack travel mm : 2.00
governor spring pre-tension click setting x : 4.70 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1000 Aneroid pressure hPa : 800 Del. quantity cm3/1000 strokes : 90.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.5 Spreed	Setting point w/out bumper spring Rated speed rpm : 475 rack travel mm : 7.20 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. :> 19.50 Testing: Rated speed rpm : 475 rack travel mm : 6.70 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 640

Rated speed rpm	:	1000
rack travel mm	:	11.85
Tolerance mm	:	← 0.05

Rated speed rpm : 500 rack travel mm : 11.90 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Pressure hPa : 800 rack travel mm : 11.85 Tolerance mm : + 0.05

Pressure hPa : rack travel mm : 11.40
Tolerance mm : + 0.10

MEASUREMENT

Pressure hPa : 780
rack travel mm : 11.75
Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

h®a : -Rated speed rpm : 500

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75 Del. quantity cm3/1000 strokes : 90.0

Tolerance

cm3/1000 strokes : + 5.0

Check tolerance

cm3/1000s. : + 8.0

LOW IDLE

Rated speed rpm : 475

Rack travel in mm: 6.70

E17

Tolerance mm Del. quantity	: +-	0.10
cm3/1000 strokes	:	13.0
cm3/1000 strokes	: +-	3.0
Check tolerance cm3/1000s.	: +-	5.0
Spreed Tolerance		
cm3/1000 strokes Check tolerance	:	2.5
cm3/1000s.	:	4.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 30.04.97 Test oil : ISO 4113

Combination No. : 0 400 876 384

Injection pump

Pump designation : PES6A95D32ORS2806 EP type number : 0 410 896 898

Governor

Governer design. : RSV375...1125ACC2178

: -8R

Governer no. : 0 420 233 280

Cust. part No.

Customer—spec. information Customer : VALMET Motor : 6200 Power KW : 88.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : +- 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

E18

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.55
Tolerance mm : + 0.05
Check

tolerance mm : 4- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Beginning of delivery differende

Difference * CS : 5.00

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 9.05 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 74.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance	- Check tolerance
cm3/1000s. : +- 3.0	- cm3/1000s. : +- 3.0
	- Spreed
Spreed	Tolerance
	- cm3/1000 strokes : 3.5
Tolerance	- Check tolerance
cm3/1000 strokes : 3.5	- cm3/1000s. : 6.0
Check tolerance	
cm3/1000s. : 6.0	
	CONTROL LEVER
1	
Rated speed rpm : 375	control lever
rated speed rpm : 3/3	position degree : 89.0
Rack travel in mm; 4.40	tolerance degree : +- 4.0
Tolerance mm : +- 0.10	- RATED SPEED
Del. quantity	rack travel mm : 8.00
sm3/1000 strokes : 16.0	Rated speed rpm : 0.00
Tolerance	Tolerance 1/min : +- 5
cm3/1000 strokes : +- 2.0	L TOCCI GING 17 WITH 1. 1
Check tolerance	rack travel mm : 4.00
cm3/1000s. : +- 4.5	Rated speed rpm : 1195
Spreed	Tolerance 1/min : + 15
Tolerance	
cm3/1000 strokes : 3.5	rack travel mm : 0.85
Check tolerance	Tolerance mm : + 0.55
cm3/1000s. : 5.5	- Rated speed rpm : 1350
+	
- <u>+</u>	- rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	- Rated speed rpm : 1200
· · · · · · · · · · · · · · · · · · ·	
WITH GOVERNOR	- Tolerance 1/min : + 15
WITH GOVERNOR	
WITH GOVERNOR	
GUIDE SLEEVE POSITION	Tolerance 1/min : +- 15
GUIDE SLEEVE POSITION	Tolerance 1/min : +- 15
GUIDE SLEEVE POSITION control lever	Tolerance 1/min : +- 15
GUIDE SLEEVE POSITION control lever position degree : - 3	Tolerance 1/min : +- 15 LOW IDLE control lever
GUIDE SLEEVE POSITION control lever	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0
GUIDE SLEEVE POSITION control lever position degree : - 3	Tolerance 1/min : +- 15 LOW IDLE control lever
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375
GUIDE SLEEVE POSITION control lever position degree : - 3 kated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 4.00
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375
GUIDE SLEEVE POSITION control lever position degree : - 3 kated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 4.00 Tolerance mm : + 0.10
GUIDE SLEEVE POSITION control lever position degree : - 3	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 4.00
GUIDE SLEEVE POSITION control lever position degree : - 3 kated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 4.00 Tolerance mm : + 0.10 Rated speed rpm : 100
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 4.00 Tolerance mm : + 0.10
GUIDE SLEEVE POSITION control lever position degree : - 3	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 4.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Aneroid pressure	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 4.00 Tolerance mm : + 0.10 Rated speed rpm : 100
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Ameroid pressure hPa : -	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 4.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing:
GUIDE SLEEVE POSITION control lever position degree : - 3 kated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Ameroid pressure hPa : - Del. quantity	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 4.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing: Rated speed rpm : 375
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 74.0	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 4.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing: Rated speed rpm : 375 rack travel mm : 4.40
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 74.0 Tolerance	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 4.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing: Rated speed rpm : 375
GUIDE SLEEVE POSITION control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1100 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 74.0	Tolerance 1/min : + 15 LOW IDLE control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 375 rack travel mm : 4.00 Tolerance mm : + 0.10 Rated speed rpm : 100 CRT mm min. : > 19.50 Testing: Rated speed rpm : 375 rack travel mm : 4.40

Rated speed rpm : 455 Tolerance 1/min : + 3

TORQUE CONTROL

Rated speed rpm : 1100 rack travel mm 9.05 Tolerance mm : +- 0.05

Rated speed rpm 500

980 Rated speed rpm : 9.35 rack travel mm : +- 0.05 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes :

58.5

Tolerance

cm3/1000 strokes : +-1.5

Check tolerance

cm3/1000s.4.0 : +-

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm : 20.25 : + 0.75 Tolerance mm

Del. quantity

cm3/1000 strokes : 200.0

Tolerance

cm3/1000 strokes : +-5.0

Check tolerance

cm3/1000s. : +-8.0

LOW IDLE

Rated speed rpm : 375

Rack travel in mm: 4,40 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 14.0

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000S. : +- 4.5 Spreed

Tolerance cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s. 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) \\400/...

Edition Test oil

: 30.04.97 : ISO 4113

Combination No. : 0 400 876 386

Injection pump

Pump designation : PES6A95D32ORS2806

EP type number : 0 410 896 898

Governor

Governer design. : RSV500...1100A0C2178

: -9R

Governer no.

: 0 420 233 282

Cust. part No. :

Customer-spec. information Customer : VALMET

Motor

: 62008

Power KW

: 124.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

173.5

Tolerance bar

: + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0

Tolerance bar : \leftarrow 1.0

Prestroke mm 2.55

: **←** 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50

Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

Beginning of delivery differende

Difference * CS :

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 11.05 Tolerance m_0 : $\leftarrow 0.05$

Del. quantity

cm3/1000 strokes :

96.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance	1	Check tolerance	
	· · · · · · · · · · · · · · · · · · ·		
CHS/ /UUUS.	: ← 3.0 †	cm3/1000s.	: ← 3.0
		Spreed	
Spreed	+	Tolerance	
•	1	cm3/1000 strokes	; 3.5
Tolerance			. 2.7
	~ - T	Check tolerance	
cm3/1000 strokes	: 3.5	cm3/1000s.	: 6.0
	<u> </u>		
Check tolerance			
cm3/1000s.	: 6.0		
		CONTROL LEVER	
		CONTROL LEVER	
	†		
		control lever	
Rated speed rpm	: 500 +	position degree	: 85.0
	+	tolerance degree	: +- 4.0
Rack travel in mm	: 5.50 \rightarrow	3	
	: + 0.10 ±	RATED SPEED	
Del. quantity	· · · · · · · · · · · · · · · · · · ·		. 40.00
		rack travel ma	: 10.00
cm3/1000 strokes	: 25.0	Rated speed rpm	
Tolerance		Tolerance 1/min	: +- 5
cm3/1000 strokes	: ← 4.0		-
Check tolerance	1	rack travel mm	: 4.00
cm3/1000s.	: + 6.5		
	• - 0.5	Rated speed rpm	
Spreed	†	Tolerance 1/min	: i- 15
Tolerance	+		
cm3/1000 strokes	: 3.5 →	rack travel mm	: 0.85
Check tolerance	1	Tolerance mm	: +- 0.55
cm3/1000s.	: 5.5	Rated speed rpm	
	. 3.3	Nated Speed I pill	. 1345
		made Association	
(D) 0====================================	T	rack travel mm	: 4.00
(B) SETTING OF INJE	ECITON DOMB +	Rated speed rpm	
WITH GOVERNOR	+	Tolerance 1/min	: + 15
	+		
	+		
	 		
GUIDE SLEEVE POSIT	ION 1		
	1	LOW IDLE	
	1		
control lever	1		
	: - 3	control lever	
			. /7.6
Rated speed rpm	: 800 +	position degree	: 67.0
	+	tolerance degree	: +- 4.0
Rack travel in mm :	: 0.50 ↓	-	
	+ 0.20 +	Setting point w/o	ut bumper spring
	1	occoming point wo	ar baller spilling
governon spring	1	Datad annual num	. 500
governor spring	Ť	Rated speed rpm	: 500
pre-tension	†	rack travel mm	: 5.00
click setting x	: 2.25 +	Tolerance mm	: +- 0.10
	+		
		Rated speed rpm	: 100
FULL LOAD DELIVERY	AT FILL LOAD STOP	······································	
. July BOTH BELLEVILLE	TO TO COMP OF OR	CRT mm min.	. > 10 FO
Dahad assault	. 1100	CRIMEN MITH.	: > 19.50
Rated speed rpm :	: 1100 +		
Aneroid pressure	 	Testing:	
hPa :	: - +	-	
Del. quantity	1	Rated speed rpm	: 500
cm3/1000 strokes :	: %.0	rack travel mm	: 5.50
	. 70.0		
Tolerance	t t	Tolerance mm	: ← 0.10
cm3/1000 strokes :	: ← 1.0 +		
		rack travel mm	

2.00

rack travel mm

Rated speed rpm	:	570
Tolerance 1/min	:	← 30

TORGIOE CONTROL		
Rated speed rpm	:	1100
rack travel am	:	11.05
Tolerence me		L 0 05

Rated speed rpm	:	500
rack travel mm	:	12.05
Tolerance nm	; +	- 0.05

Rated speed rpm	:		790
rack travel mm	:		11.60
Tolerance am	:	+	0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	_
Rated speed rpm	:	500

Del. quantity cm3/1000 strokes : 92.5

Tolerance cm3/1000 strokes : + 1.5 Check tolerance

cm3/1000s. : + 4.0

STARTING FUEL DELIVERY

Rated speed rpm rack travel mm Tolerance Mm	: 100 : 20.25 : ← 0.75
Del. quantity cm3/1000 strokes Tolerance	: 195.0
cm3/1000 strokes Check tolerance	: ← 5.0
cm3/1000s.	: + 8.0

LOW IDLE

Rated	speed	rpm	:	500

Rack travel in mmn Tolerance mmn	: : +-	5.50 0.10
Del. quantity cm3/1000 strokes	:	25.0

Tolerance cm3/1000 strokes : + 4.0

Check tolerance cm3/1000s. Spreed	: +-	6.5
Tolerance cm3/1000 strokes Check tolerance	:	3.5
cm3/1000s.	:	5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 30.04.97 : ISO 4113

Combination No. : 0 400 876 393

Injection Jump

Pump designation : PES6A90D410RS2723

EP type number

: 0 410 896 085

Governor

Governer design. : RSV300...1350A0C2257

Governer no.

: 0 420 232 568

Cust. part No. :

Customer-spec. information

Customer

: IVECO-AIFO

Motor

: 8061.SRM 25

TEST BENCH REQUIREMENTS

Inlet line

: 3.1

Test oil inlet

temp. °C

40

Tolerance °C

: +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

: 173.5

Tolerance bar

: **←** 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 2.25 : + 0.05Tolerance mm

Check

tolerance ma : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance 'NW : + 0.75

BASIC SETTING

Rated speed rpm : 1350

Rack travel in mm: 13.65

: +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 109.5

Tolerance

cm3/1000 strokes : +-0.5

Check tolerance

cm3/1000s.

: +- 2.5

Spreed

Tolerance cm3/1000 strokes : 3.0	Check tolerance cm3/1000s. : 4.5
Check tolerance cm3/1000s. : 4.5	
	CONTROL LEVER
	+ control lever
Rated speed rpm : 300	position degree : 104.0 + tolerance degree : + 4.0
Rack travel in mm : 6.00	+
Tolerance mm : + 0.10	+ RATED SPEED
Del. quantity	+ rack travel mm : 12.70
cm3/1000 strokes : 25.0	+ Rated speed rpm : 1395
Tolerance	+ Tolerance 1/min : + 5
cm3/1000 strokes : + 2.0	+
Check tolerance	+ rack travel mm : 4.00
cm3/1000s. : + 4.0	+ Rated speed rpm : 1610
Spreed	+ Tolerance 1/min : + 15
Tolerance	†
cm3/1000 strokes : 2.5	+ rack travel mm : 0.85
Check tolerance	+ Tolerance mm : + 0.55
cm3/1000s. : 4.5	Rated speed rpm : 1700
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	LOW IDLE
CHAR OF CHE POSTER	T
GILLOF STEEVE BOSCILON	L control lever
GUIDE SLEEVE POSITION	t control lever
COIDE SPEEAE MOSTITOM	+ position degree : 78.0
control lever	· · · · · · · · · · · · · · · · · · ·
	position degree : 78.0 tolerance degree : + 4.0
control lever	+ position degree : 78.0
control lever position degree : - 3 Rarted speed rpm : 800	position degree : 78.0 tolerance degree : + 4.0
control lever position degree : - 3 Rarted speed rpm : 800 Rack travel in mm : 0.50	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50
control lever position degree : - 3 Rarted speed rpm : 800	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10
control lever position degree : - 3 Rarted speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1350	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 555
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1350 Aneroid pressure	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1350 Aneroid pressure hPa : -	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 555
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1350 Aneroid pressure hPa : - Del. quantity	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 555 Tolerance 1/min : + 30
control lever position degree : -3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1350 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 109.5	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 555 Tolerance 1/min : + 30
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1350 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 109.5 Tolerance	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 555 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1350
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1350 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 109.5 Tolerance cm3/1000 strokes : + 0.5	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 555 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1350 rack travel mm : 13.65
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1350 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 109.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 555 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1350
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1350 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 109.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.5	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 555 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1350 rack travel mm : 13.65 Tolerance mm : + 0.05
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1350 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 109.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.5 Spreed	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 555 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1350 rack travel mm : 13.65 Tolerance mm : + 0.05 Rated speed rpm : 500
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 4.50 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1350 Aneroid pressure hPa : - Del. quantity cm3/1000 strokes : 109.5 Tolerance cm3/1000 strokes : + 0.5 Check tolerance cm3/1000s. : + 2.5	position degree : 78.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 300 rack travel mm : 5.50 Tolerance mm : + 0.10 Testing: Rated speed rpm : 300 rack travel mm : 6.00 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 555 Tolerance 1/min : + 30 TORQUE CONTROL Rated speed rpm : 1350 rack travel mm : 13.65 Tolerance mm : + 0.05

Rated speed rpm : 350 rack travel mm : 15.20 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity

cm3/1000 strokes : 98.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.5

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 17.40 Tolerance mm : + 0.20

Del. quantity

cm3/1000 strokes : 125.0

Tolerance

cm3/1000 strokes : + 5.0

Check tolerance

cm3/1000s. : + 8.0

LOW IDLE

Rated speed rom : 300

Rack travel in mm : 6.00 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 25.0

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : \leftarrow 4.0

Spreed

Tolerance

cm3/1000 strokes : 2.5

Check tolerance

cm3/1000s. : 4.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 30.04.97 : ISO 4113

Combination No. : 0 400 876 402

Injection pump

Pump designation : PES6A95D32ORS2832

EP type number : 0 410 896 897

Governor

Governer design. : RSV500...1100A0c2218

: -1R

Governer no.

: 0 420 233 294

Cust. part No. :

Customer-spec. information

Customer : VALMET

Motor

: 6200S MK II

Power KW

: 131.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

: 173.5

Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar :

Tolerance bar : + 1.0

Prestroke mm : 2.55

: - 0.05 Tolerance imm

Check

: + 0.10tolerance mm

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.50

Check

: **←** 0.75 tolerance "NW

Beginning of delivery differende

and maximum rack

10.50 travel

Tolerance mm : + 1.50

Difference * CS : 5.00

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 12.05

: + 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 107.0

E27

Tolerance	∔ Tolerance
cm3/1000 strokes : + 1.0	- cm3/1000 strokes : + 1.0
	+ Check tolerance
Check tolerance	- cm3/1000s. : + 3.0
cm3/1000s. : +- 3.0	Spreed
	Tolerance
Spreed	cm3/1000 strokes : 3.5
opi cou	Check tolerance
Tolerance	
cm3/1000 strokes : 3.5	+ cm3/1000s. : 6.0
tablifood strokes . 3.3	T
Check tolerance	T
cm3/1000s. : 6.0	CONTROL LEVER
. 4,0	T CONTROL LEVER
	I control lever
	position degree : 89.0
Rated speed rpm : 500	tolerance degree : +- 4.0
Naces speed ipin . Low	T total ance degree ; 4.0
Rack travel in mm : 4.80	RATED SPEED
Tolerance mm : +- 0.10	
Del. quantity	rack travel mm : 11.00
	+ Rated speed rpm : 1145
cm3/1000 strokes : 21.0 Tolerance	Tolerance 1/min : + 5
	†
cm3/1000 strokes : + 3.0	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1215
cm3/1000s. : + 5.5	Tolerance 1/min : + 15
Spreed	†
Tolerance	+ rack travel mm : 0.85
cm3/1000 strokes : 3.5	Tolerance mm : +- 0.55
Check tolerance	+ Rated speed rpm : 1300
cm3/1000s. : 5.5	†
	†
(D) OFFICE OF THE PROPERTY STATE	†
(B) SETTING OF INJECTION FUMP	
WITH GOVERNOR	+ LOW IDLE
	†
	T control Loven
CUIDE SI SEVE POSITION	t control lever
GUIDE SLEEVE POSITION	+ position degree : 70.0
	tolerance degree : +- 4.0
control loven	Continue and the continue of t
control lever	+ Setting point w/out bumper spring
position degree : - 3	T Dated and 1
Rated speed rpm : 800	† Rated speed rpm : 100
Dools through in many 0.50	† CDT == =4:
Rack travel in mm: 0.50	+ CRT mam min. : > 19.50
Tolerance mm : + 0.20	†·
	† Testing:
governor spring	†
pre-tension	+ Rated speed rpm : 500
click setting x : 3.00	† rack travel mm : 4.80
	† Tolerance mm : +- 0.10
	†
FULL LOAD DELIVERY AT FULL LOAD STOP	+ rack travel mm : 2.00 + Rated speed rpm : 540
Rated speed rpm : 1100	† Tolerance 1/min : +- 30
Aneroid pressure	+
hPa : -	+ SET IDLE AUXILIARY SPRING
Del. quantity	+
cm3/1000 strokes : 107.0	+ Rated speed rpm : 100

TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1100 : 12.05 : ← 0.05	
Rated speed rpm rack travel mm Tolerance mm	: 700 : 13.50 : ← 0.10	
Rated speed rpm rack travel mm Tolerance mm	: 950 : 12.50 : + 0.10	
ANEROID/ALTITUDE COMPENSATOR TEST		
SETTING		
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 800 : 13.50 : + 0.10	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 11.75 : ← 0.05	
MEASUREMENT		
Rated speed rpm	: 500	
Pressure hPa rack travel mm Tolerance mm	: 525 : 12.10 : + 0.10	
Pressure hPa rack travel mm Tolerance mm	: 650 : 12.85 : + 0.05	
FUEL DELIVERY CHA	RACTERISTICS	
#neroid pressure		
hPa Rated speed rpm	: - : 700	
Del. quantity cm3/1000 strokes	: 116.5	
Tolerance cm3/1000 strokes	: + 1.5	
Check tolerance cm3/1000S.	: ← 4.0	

rack travel mm Tolerance mm	: 12.50 : + 0.10
Aneroid pressure hPa Rated speed rpm Del. quantity	: - : 500
cm3/1000 strokes Tolerance	: 86.0
cm3/1000 strokes	: + 1.5
Check tolerance cm3/1000s.	: +- 3.5
STARTING FUEL DEL	IVERY
Rated speed rpm	: 100
rack travel mm	: 20.25
Tolerance mm	: ← 0.75
Del. quantity cm3/1000 strokes	: 200.0
Tolerance	. 200.0
cm3/1000 strokes	: 5.0
Check tolerance	•
cm3/1000s.	: +- 8.0
LOW IDLE Rated speed rpm Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 4.80 : ← 0.10
Check tolerance	
cm3/1000s.	: 5.5

Note remarks

Refor to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 30.06.97 : ISO 4113

Combination No. : 0 402 646 647

Injection pump

Pump designation: PE6P130A1320/5RS7335

EP type number : 0 412 636 827

Governor

Governer design. : RQV350...900PA760-1

Governer no. : 0 421 813 617

Cust. part No. : 76.61.192

Customer-spec. information

Customer : GUASCCR

: F180,F360 T/TAB Motor

Power KW : 368.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. 'C : 40 : + 2.0 Tolerance °C

Overflow valve : 1 417 413 025

Inlet press. bar :

Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

: 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

: **←** 0.30 Tolerance

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rack travel in mm: 4.70 Tolerance mm : + 0.20

(B) SETTING OF INJECTION PUMP

WITH GOVERNOR

GUIDE SLEEVE TRAVEL

Rated speed rpm : 958

guide sleeve

travel mm : 8.57 Tolerance mm : + 0.25

F02

Rated speed rpm : 350 guide sleeve travel mm : 1.62 Tolerance mm : + 0.25	
Rated speed rpm : 469 guide sleeve travel mm : 3.42 Tolerance mm : + 0.25	
Rated speed rpm : 519 guide sleeve travel mm : 4.07 Tolerance mm : + 0.25	
Rated speed rpm : 720 guide sleeve travel mm : 5.69 Tolerance mm : + 0.25	•
Rated speed rpm : 1150 guide sleeve travel mm : 11.50 Tolerance mm : + 0.50	
GUIDE SLEEVE POSITION	
control lavan	
control lever position degree : - 1 Rated speed rpm : 1060	
position degree : - 1 Rated speed rpm : 1060 Rack travel in mm : 7.00	
position degree : - 1 Rated speed rpm : 1060 Rack travel in mm : 7.00 Tolerance mm : + 2.00	
position degree : - 1 Ræted speed rpm : 1060 Rack travel in mm : 7.00 Tolerance mm : + 2.00 CONTROL LEVER control lever position degree : 61.0	
position degree : - 1 Reted speed rpm : 1060 Rack travel in mm : 7.00 Tolerance mm : + 2.00 CONTROL LEVER control lever position degree : 61.0 tolerance degree : + 4.0 control lever position degree : 117.0	
position degree : - 1 Rated speed rpm : 1060 Rack travel in mm : 7.00 Tolerance mm : +- 2.00 CONTROL LEVER control lever position degree : 61.0 tolerance degree : +- 4.0 control lever position degree : 117.0 tolerance degree : +- 4.0 RATED SPEED rack travel mm : 9.70 Rated speed rpm : 945	

Rated speed rpm : 1150 LOW IDLE control lever position degree : 62.0 tolerance degree : + 4.0 control lever position degree : 12.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 250 CRT mm min. :> 6.50Testing: Rated speed rpm : 350 rack travel mm : 4.70 : **←** 0.20 Tolerance mm Rated speed rpm : 410 STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 10.70 Tolerance mm : + 0.20 LOW IDLE Reck travel in mm: 4.70 Tolerance mm : \leftarrow 0.20 End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 04.09.97 Test oil : ISO 4113

Combination No. : 0 400 463 133

Injection pump

Pump designation : PES3A75D410/3RS1324

EP type number : 0 410 473 977

Governor

Governer design. : RSV325...1400A8C495L

6overner no. : 0 420 232 302

Cust. part No. :

Customer—spec. information Customer : KHD Motor : F3L912

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.0

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : ← 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

F04

x length mm : 600 REMARKS (A) INJECTION PUMP SETTING VALUES Set equal delivery quant. per values ____ BEGINNING OF DELIVERY Test pressure bar : 26.0 Tolerance bar : + 1.0 Prestroke mm 1.95 : + 0.05Tolerance mm Check tolerance mm : + 0.10Rack travel in mm: 10.50 Tolerance mm : +- 1.50 Firing order : 1- 3- 2 Phasing : 0-120-240 Tolerance : +- 0.50 Check tolerance *NW : + 0.75BASIC SETTING Rated speed rpm : 1400 Rack travel in mm : 10.25 Tolerance mm : +- 0.05 Del. quantity cm3/1000 strokes : 44.0 Tolerance cm3/1000 strokes : \leftarrow 0.5 Check tolerance cm3/1000s. : +-2.0 Spreed

Tolerance

cm3/1000 strokes :

2.0

Check tolerance cm3/1000s. 3.5 Rated speed rpm : 325 Rack travel in mm: 8.50 Tolerance mm : +- 0.10 (B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION control Lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.65 Tolerance mm : \leftarrow 0.35 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1400 Aneroid pressure hPa Dei. quantity cm3/1000 strokes : 44.0 Tolerance cm3/1000 strokes : +- 0.5Check tolerance cm3/1000s. **;** +--2.0 Spreed Tolerance cm3/1000 strokes : 2.0 Check tolerance 3.5 cm3/1000s. CONTROL LEVER control Lever position degree : 67.0 tolerance degree : +- 4.0 RATED SPEED 9.20 rack travel mm :

rack travel mm : 1.00 Tolerance mm : + 0.70 Rated speed rpm : 1600 LOW IDLE control lever position degree : 20.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 325 rack travel mm : 9.00 Tolerance mm : +- 0.10 Rated speed rom : 100 CRT mm min. : > 19.00 Testing: Rated speed rpm 325 rack travel mm 8.50 : + 0.10 Tolerance mm : 2,00 rack travel mm Rated speed rpm : 730 Tolerance 1/min : +-TORQUE CONTROL Rated speed rpm : 1400 rack travel mm 10.25 Tolerance mm : + 0.05500 Rated speed rpm : rack travel mm 11.55 Tolerance me : + 0.05Rated speed rpm : 955 rack travel mm : 10.90 : + 0.10 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

10.90

: + 0.10

rack travel mm :

Tolerance mm

rack travel mm : 9.20
Rated speed rpm : 1445
Tolerance 1/min : +- 5

rack travel mm : 4.00
Rated speed rpm : 1485
Tolerance 1/min : + 15

F05

STARTING FUEL DELIVERY

Rated speed rpm : 100

LOW IDLE

Rated speed rpm : 325

Rack travel in mm : 8.50 Tolerance mm : + 0.10

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 11.09.97 : ISO 4113

Combination No. : F 002 A0Z 033

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV475...1050A0c911R

Soverner no. : F 002 A20 223

Cust. part No. : 3283692

Customer-spec. information

Customer : CUMMINS

Motor

: 6BT-155 PS/2100

TEST BENCH REQUIREMENTS

Inlet Line

: 3.2

Test oil inlet

temp. °C

40

Tolerance °C

: **←** 2.0

Overflow valve : 2 417 413 093

Inlet press. bar :

2.0

Tolerance bar

: + 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

208.5

Tolerance bar

1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter:

x Length mm :

2.0 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm 2.85 Tolerance mm

: +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 : **←** 1.50

Tolerance mm

Firing order

: 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00

Tolerance

: +- 0.10

Check

tolerance *NW

: +- 0.29

Barrel no.

: 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 13.40

F07

Tolerance mm	: ← 0.05
Del. quantity cm3/1000 strokes	: 113.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: + 3.0
Spreed	
Tolerance cm3/1000 strokes	: 4.0
Check tolerance cm3/1000s.	: 6.5
Rated speed rpm	: 475
Rack travel in ma	
Tolerance mm	: ← 0.10
Del. quantity cm3/1000 strckes	: 20.8
Tolerance	. 20.0
cm3/1000 strokes	: ← 2.0
Check tolerance	
cm3/1000s. Spreed	: ← 4.5
Tolerance	
cm3/1000 strokes	: 6.0
Check tolerance cm3/1000s.	: 8.0
(B) SETTING OF IN.	
GUIDE SLEEVE POSI	
Rated speed rpm	: 800
Rack travel in mm. Tolerance mm	: 0.50 : + 0.20
governor spring pre-tension click setting x	: 4.50
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm Ameroid pressure	: 1050

Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: + 1.0 : + 3.0
CONTROL LEVER	
control lever position degree tolerance degree	: 104.0 : + 4.0
RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 12.40 : 1080 : + 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1185 : + 5
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 1300
rack travel mm Tolerance mm Rated speed rpm Tolerance 1/min	: 4.00 : ← 0.05 : 1185 : ← 15

LOW IDLE

control lever
position degree : 83.0
tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 475
rack travel mm : 5.30
Tolerance mm : + 0.10

Rated speed rpm : 100

CRT mm min. : > 19.00

Testing:

F08

hPa

Aneroid pressure

: 1200

Rated speed rpm rack travel mm Tolerance mm rack travel mm Rated speed rpm Tolerance 1/min	
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 13.40 : +- 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 500 : 1200
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 11.10 : ← 0.20
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mma	: 700 : 12.60 : +- 0.20
Pressure hPa rack travel mm Tolerance mm	: 550 : 11.75 : + 0.20
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 1200 : 750 : 119.5
Tolerance cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000s.	: + 4.0

Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
LOW IDLE	
Rated speed rpm	: 475
Rack travel in man Tolerance mm Del. quantity	: + 0.10
cm3/1000 strokes Tolerance	
cm3/1000 strokes Check tolerance	
cm3/1000s. Spreed	: ← 4.5
Tolerance cm3/1000 strokes	; 6.0
Check tolerance cm3/1000s.	: 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 11.09.97 : ISO 4113

Combination No. : F 002 ADZ 056

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV475...1100A0c935R

Governer no. : F 302 A20 240

Cust. part No. : DEP: 328 3856

Customer-spec. information

Customer : CUMMINS

Motor

: 6BT - 148 HP

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance °C

: 40 : + 2.1

Overflow valve : 2 417 413 093

Inlet press. bar :

2.0

Tolerance bar : + 0.1

Test nozzle hold∈

assembly

: 1 688 901 101

Opening pressure

bar

: 208.5

Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0

Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Fhasing : 0-60-120-180-240

: -300

Tolerance

: +- 0.50

Check

tolerance *NW

: **←** 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00 Tolerance : \leftarrow 0.10

Check

tolerance *NW

: **←** 0.29

Barrel no.

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 12.80

Tolerance mm : + 0.05	Rated speed rpm : 1100 Aneroid pressure
Del. quantity cm3/1000 strokes : 106.5	hPa : 1000 Del. quantity
Tolerance	cm3/1000 strokes : 106.5
cm3/1000 strokes : + 1.0	cm3/1000 strokes : + 1.0 Check tolerance
Check tolerance cm3/1000s. : + 3.0	cm3/1000s. : +- 3.0 Spreed
Spreed	Tolerance cm3/1000 strokes : 4.0
	Check tolerance
Tolerance cm3/1000 strokes : 4.0	cm3/1000s. : 6.5
Check tolerance	
cm3/1000s. : 6.5	CONTROL LEVER
	control lever
1	position degree : 103.0
Rated speed rpm : 475	tolerance degree : + 4.0
Rack travel in mm: 5.40	RATED SPEED
Tolerance mm : + 0.10	rack travel mm : 11.80
Del. quartity +	Rated speed rpm: : 1150
cm3/1000 strokes : 15.0	Tolerance 1/min : + 5
cm3/1000 strokes : + 2.0 Check tolerance	rack travel mm : 4.00
cm3/1000s. : +- 4.5	Rated speed rpm : 1250 Tolerance 1/min : 4- 5
Spreed -	
Tolerance +	rack travel mm : 0.85
cm3/1000 strokes : 6.0	Tolerance mm : + 0.55
Check tolerance cm3/1000s. : 8.0	Rated speed rpm : 1370
cm3/1000s. : 8.0	rack travel num : 4.00
I	rack travel num : 4.00 Rated speed rpm : 1255
(B) SETTING OF INJECTION PUMP	Tolerance 1/min : +- 15
WITH GOVERNOR	Toterance Trining: +- (5
1	
GUIDE SLEEVE POSITION	LOW IDLE
-	TOW TOCK
control lever	control lever
position degree : FREE	position degree : 82.0
Rated speed rpm : 800	tolerance degree : +- 4.0
	Total alloc degree 4.0
Rack travel in mm: 0.50	Setting point w/out bumper spring
Tolerance mm : + 0.20	Debad appeal area
Covernor enring	Rated speed rpm : 475
governor spring + pre-tension +	rack travel mm : 4.90 Tolerance mm : + 0.10
click setting x : 5.00	ioterance into
7	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. :> 19.00
+	

Testing:

Rated speed rpm : 475 rack travel em 5.40 Tolerance ma : + 0.10

rack travel and 2.00 Rated speed rpm : 560 Tolerance 1/min : +-30

TORQUE CONTROL

Rated speed rpm : 1100 rack travel mm : 12.80 Tolerance mm : **←** 0.05

Rated speed rom 800 rack travel mm 13.10 : + 0.20 Tolerance mm

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hPa 1000

500 Rated speed rom : Pressure hPa rack travel mm 10.15 : **←** 0.20 Tolerance mm

MEASUREMENT

Rated speed rpm : 500

Pressure hPa 700 rack travel mm 12.45 Tolerance na : ← 0.20

Pressure hPa 560 rack travel mm : 11.95 Tolerance mm : + - 0.20

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

1000 hPa Rated speed rpm 800 Del. quantity

cm3/1000 strokes : 111.4

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance		
cm3/1000s.	: +-	4.0

Aneroid pressure

Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 79.1

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. 3.0

STARTING FUEL DELIVERY

Rated speed rom 100 rack travel mm : 20.25 Tolerance mm : + 0.75

Del. quantity cm3/1000 strokes : 120.5

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : +- 15.0

LOW IDLE

Rated speed rpm :

Rack travel in mm: 5.40 Tolerance na : → 0.10 Del. quantity

cm3/1000 strokes : 15.0 Tolerance

2.0

cm3/1000 strokes : +-Check tolerance

cm3/1000s. 4.5

Spreed Tolerance

cm3/1000 strokes : 6.0

Check tolerance

cm3/1000s. 8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15.09.97 : ISO 4113

Combination No. : F 002 AUZ 013

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governar design. : RSV475...1000A00890R

Governer no. : F 002 A20 213

Cust. part No. : 3930163

Customer-spec. information Customer : CDC Motor : 6BTA Power KW : 123.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

: 2.85 Prestroke mm : + 0.05 Tolerance mm Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5- 3- 6- 2-

Phasing : 0-60-120-180-240

: -300

Tolerance Check

: +- 0.50

tolerance *NW : +- 0.75

Start of delivery blocking

*NN after s.o.d. : 7.50 Tolerance : \leftarrow 0.50

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 13.70	
Tolerance mm : + 0.05	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes : 116.0	Rated speed rpm : 1000 Aneroid pressure
Tolerance	hPa : 1200 Del. quantity cm3/1000 strokes : 116.0
Check tolerance	Tolerance cm3/1000 strokes : + 1.0
cm3/1000s. : + 3.0	Check tolerance cm3/1000s. : + 3.0
Spreed	Spreed Tolerance
Tolerance cm3/1000 strokes : 3.5	cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0
Check tolerance cm3/1003s. : 6.0	tm5/10005. : 0.0
 ‡	CONTROL LEVER
Rated speed rpm : 475	control lever position degree : 100.0
Rack travel in mms: 5.95 Tolerance mm : + 0.10	tolerance degree : +- 4.0
Del. quantity cm3/1000 strokes : 20.6 Tolerance	RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1045
cm3/1000 strokes : - 2.0 Check tolerance	Tolerance 1/min: : - 5
cm3/1000S. : + 4.5 Spreed Tolerance	rack travel mma : 6.70 Rated speed rpm : 1120
cm3/1000 strokes : 3.5 Check tolerance	Tolerance 1/min : +- 5 rack travel mm : 0.85
cm3/1000s. : 5.5	Tolerance mm : + 0.55 Rated speed rpm : 1200
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 6.70 Rated speed rpm : 1120 Tolerance 1/min : +- 15
GUIDE SLEEVE POSITION	
control lever	LOW IDLE
position degree : FREE Rated speed rpm : 800	control lever
Rack travel in mm: 0.50 Tolerance mm: : + 0.20	position degree : 82.0 tolerance degree : + 4.0
governor spring	Control lever difference Grad : 18.0
pre-tension click setting x : 2.50	tolerance degree : + 6.0 Setting point w/out bumper spring
I	second bount wood pomber should

Rated speed rpm : 475 rack travel mm 5.45 : + 0.10Tolerance m

Rated speed rom 100 :

CRT mm min. : > 19.00

Testing:

Rated speed rom : 475 rack travel am : 5.95 Tolerance and : + - 0.10

TORQUE CONTROL

Rated speed rpm : 1000 rack travel mm 13.70 Tolerance mm : + 0.05

Rated speed rpm : 750

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hipa 1200

Rated speed rom 500 Pressure hPa 11.10 rack travel mm : ÷ 0.10 Tolerance ram

MEASUREMENT

Rated speed rpm : 500

630 Pressure hPa rack travel mm : 13.00 : +- 0.20 Tolerance mm

Pressure hPa 370 : 370 : 11.30 rack travel mm : + 0.20Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 500 Del. quantity cm3/1000 strokes : 87.5 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : +-3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50Del. quantity cm3/1000 strokes : 121.5

Tolerance cm3/1000 strokes : \leftarrow 10.0

Check tolerance

cm3/1000s. : + 15.0

LOW IDLE

Rated speed spm : 475

Rack travel in mm : 5.95 Tolerance mm : + 0.10 Del. quantity

cm3/1000 strokes : 20.6 Tolerance

cm3/1000 strokes : +- 2.0 Check tolerance

cm3/1000s.: +- 4.5 Spreed

Toterance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 28,05,97 : ISO 4113

Combination No. : F 002 A0Z 041

Injection pump

Pump designation : PES6A95D32D/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV500...1100AOC923R

Governer no.

: F 002 A20 231

Cust. part No. : 3932476

Customer-spec. information Customer : CDC Motor : 6BT Power KW : 75.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

har 208.5 : + 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length am :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85 : +- 0.05 Tolerance mai Check tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerence mm : + 1.50

: 1-5-3-6-2-Firing order

: 4

Phasing : 0-60-120-160-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00 : **←** 0.50 Tolerance

Check

tolerance *NW : **←** 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 9.00 Tolerance max : + 0.05

F16

Del. quantity cm3/1000 strokes	: 70.5
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: + 3.0
Spreed	
Tolerance cm3/1000 strokes	: 3.5
Check tolerance cm3/1000s.	: 6.0
Rated speed rpm	: 500
Rack travel in mm Tolerance mm Del. quantity	5.00 : + 0.10
cm3/1000 strokes Tolerance	: 18.5
cm3/1000 strokes Check tolerance	: ← 2.0
cm3/1000s. Spreed	: +~ 4.5
Tolerance cm3/1000 strokes Check tolerance	: 3.5
cm3/1000s.	: 5.5
(B) SETTING OF IN WITH GOVERNOR	JECTION PUMP
GUIDE SLEEVE POSI	TION
control lever position degree Rated speed rpm	: - 3 : 800
Rack travel in mm Tolerance mm	: 0.50 : + 0.20
governor spring pre-tension click setting x	: 2.75
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Date of amount are	4400

Aneroid pressure	• •••
Del. quantity cm3/1000 strokes	: 70.5
Tolerance cm3/1000 strokes	: ← 1.0
Check tolerance cm3/1000s.	: ← 3.0
Spreed Tolerance	3.5
cm3/1000 strokes Check tolerance	: 3.5
cm3/1000s.	: 6.0
CONTROL LEVER	
control lever position degree	: 100.0
RATED SPEED rack travel mm	: 8.00
Rated speed rpm Tolerance 1/min	: 1165 : + 5
rack travel mm	: 4.00
Rated speed rpm Tolerance 1/min	: 1260 : ± 5
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : ← 0.55 : 1400
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1270 : ← 15

LOW IDLE

control lever position degree : 84.0

Control lever difference Grad : 16.0 tolerance degree : +- 6.0

Setting point w/out bumper spring

Rated speed rpm : 500 rack travel mm : 4.50 Tolerance mm : + 0.10

Rated speed rpm : 100

CRT mm min. : > 19.00

Rated speed rpm : 1100

Testing:

Rated speed rpm : 500 rack travel mm : 5.00 Tolerance mm : ← 0.10

TORQUE CONTROL

Rated speed rpm : 1100 rack travel mm : 9.00 Tolerance mm : ← 0.05

750 9.4 Rated speed rpm : rack travel mm : 9.60 : +~ 0.10 Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 750 Del. quantity

cm3/1000 strokes : 76.5

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. : +-4.0

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm : 20.50 : +- 0.50 Tolerance mm

Del. quantity

cm3/1000 strokes : 120.5

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : + 15.C

LOW IDLE

Rated speed rpm : 500

5.00 Rack travel in mm: Tolerance mm 0.10

Del. quantity cm3/1000 strokes : 18.5

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

: +- 4.5 cm3/1000s.

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 20.08.97 : ISO 4113

Combination No. : F 000 409 102

Injection pump

Pump designation : PES6P120A720LS7257

: -11

EP type number

: F 000 400 201

Governor

6overner design. : RQV300...950PA1242

Governer no.

: 9 420 080 387

Cust. part No. : 0280743302

Customer-spec. information

: MBB Customer

: OM 447LA Euro II Motor

Power KW

: 264.8

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C

40

Tolerance °C

: **←** 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.3

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

bar

208.5

Tolerance bar

Test lines

: 1 680 750 075

Outside diameter: 8.0

F19

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 4.70 : + 0.05Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 21.00

Firing order : 6-2-4-1-5-

: 3

Phasing : 0-60-120-180-240

: -300

Tolerance

: - 0.50

Check

tolerance *NW : + - 0.75

BASIC SETTING

Rated speed rpm : 600

Rack travel in mm: 13.40 Tolerance mm : **←** 0.05

Del. quantity

cm3/1000 strokes : 276.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s.

: + 4.0

Spreed

Tolerance cm3/1000 strokes	: 5.0
Check tolerance	
cm3/1000s.	: 9.0
Rated speed rpm	: 300
Rack travel in m Tolerance mm	m: 5.00 : +- 0.10
Del. quantity	: 0.10
cm3/1000 strokes	: 7.5
Tolerance cm3/1000 strokes	: ← 3.0
Check tolerance	
cm3/1000s. Spreed	: ← 6.0
Tolerance	
cm3/1000 strokes Check tolerance	: 8.0
cm3/1000s.	: 12.0
(B) SETTING OF IN	NJECTION PUMP
GUIDE SLEEVE TRA	VEL
GUIDE SLEEVE TRANS Rated speed rpm guide sleeve	VEL : 700
GUIDE SLEEVE TRAN	VEL
GUIDE SLEEVE TRAY Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	VEL : 700 : 4.55
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve	VEL : 700 : 4.55 : ← 0.25 : 1050
GUIDE SLEEVE TRAY Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm	VEL : 700 : 4.55 : + 0.25
GUIDE SLEEVE TRAI Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	VEL : 700 : 4.55 : ← 0.25 : 1050 : 7.70 : ← 0.10
Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	VEL : 700 : 4.55 : ← 0.25 : 1050 : 7.70 : ← 0.10 : 300 : 0.75
Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	VEL : 700 : 4.55 : ← 0.25 : 1050 : 7.70 : ← 0.10
Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	YEL : 700 : 4.55 : + 0.25 : 1050 : 7.70 : + 0.10 : 300 : 0.75 : + 0.25
GUIDE SLEEVE TRAI Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm	YEL : 700 : 4.55 : ← 0.25 : 1050 : 7.70 : ← 0.10 : 300 : 0.75 : ← 0.25 : 500
Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	YEL : 700 : 4.55 : + 0.25 : 1050 : 7.70 : + 0.10 : 300 : 0.75 : + 0.25
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm Rated speed rpm	YEL : 700 : 4.55 : + 0.25 : 1050 : 7.70 : + 0.10 : 300 : 0.75 : + 0.25 : 500 : 3.45 : + 0.25
Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm guide sleeve travel mm Tolerance mm Tolerance mm Tolerance mm Tolerance mm	YEL : 700 : 4.55 : + 0.25 : 1050 : 7.70 : + 0.10 : 300 : 0.75 : + 0.25 : 500 : 3.45 : + 0.25

······································	: - 1 : 1120
Rack travel in man Tolerance mann	: 16.50 : + 1.30
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Rated speed rpm	: 600
Aneroid pressure hPa	: 1300
Del. quantity cm3/1000 strokes	: 276.0
Tolerance	
cm3/1000 strokes Check tolerance	: +- 1.0
cm3/1000s. Spreed	: + 4.0
Tolerance cm3/1000 strokes	: 5.0
Check tolerance cm3/1000s.	: 9.0
tolerance degree RATED SPEED rack travel mm	: + 4.0 : 12.10
Rated speed rpm Tolerance 1/min rack travel mm Rated speed rpm Tolerance 1/min rack travel mm	: 1025 : ← 5 : 4.00 : 1135 : ← 15 : 0.50
Rated speed rpm Tolerance 1/min rack travel man Rated speed rpm Tolerance 1/min rack travel man Tolerance man Rated speed rpm	: 1025 : ← 5 : 4.00 : 1135 : ← 15
Rated speed rpm Tolerance 1/min	: 1025 : + 5 : 4.00 : 1135 : + 15 : 0.50 : + 0.50 : 1230
Rated speed rpm Tolerance 1/min rack travel mm Rated speed rpm Tolerance 1/min rack travel mm Tolerance mm Rated speed rpm LOW IDLE control lever	: 1025 : 4.00 : 1135 : + 15 : 0.50 : + 0.50 : 1230 : 78.0 : + 4.0

CRT mam min.	•> 200	+ Rated speed rpm	: < 220
CIVI MAN IN 111.	. > 0.00	Check	
Testing:			٠ 00
resting.		+ speed 1/min	: > 80
Datad apped and	. 700	+ Check	2/0
Rated speed rpm	500	+ speed 1/min	: < 240
rack travel mm Tolerance mm	: 5.00 : +- 0.10	†	
lolerance mm	: +- 0.10	+	
		+ FUEL DELIVERY CHA	RACTERISTICS
Rated speed rpm	: 325	†	
		Aneroid pressure	
TORQUE CONTROL		+ hPa	: 1300
Rated speed rpm	: 600	Rated speed rpm	. 1500
rack travel	. 17 /0	T Rated speed rpm	: 930
rack travel mm Tolerance mm	13.40	+ Del. quantity	254.2
loterance am	: +- 0.05	cm3/1000 strokes	: 254.0
		+ Tolerance	
Rated speed rom	: 950	+ cm3/1000 strckes	: +- 2.0
rack travel mm Tolerance mm	: 13.20	† Check tolerance	
Tolerance mm	: ← 0.05	+ cm3/1000s.	: +- 5.0
		Spreed	
Rated speed rpm	• 750	+ Tolerance	
rack travel mm	: 13.40	cm3/1000 strokes	, 0 n
Tolerance am	. 4- 6 65		. 0.0
TO CETTALINE UM	: ← C.Ů5	+ Check tolerance	4
		+ cm3/1000s.	: 12.0
Rated speed rpm rack travel mm Tolerance mm	: 900	+	
rack travel mm	: 13.25	+	
Tolerance mm	: +- 0.05	+ Aneroid pressure	
		- hPa	: 1300
		Rated speed rpm	750
ANEROID/ALTITUDE		+ rack travel mm	: 13,40
COMPENSATOR TEST		+ Tolerance mm	
CONTENSATOR TEST		· · · · · · · · · · · · · · · · · · ·	: 0.05
		+ Del. quantity	0/0 5
		+ <u>cm3/1000</u> strokes	: 268.5
SETIING		† Tolerance	
		+ cm3/1000 strokes	: +- 2.0
Rated speed rpm	: 500	+ Check tolerance	
Pressure hPa	: 1300	+ cm3/1000s.	: 5.0
rack travel mm	: 13.40	Spreed	
Tolerance min	: ∹- G.05	Tolerance	
·		+ cm3/1000 strokes	: 8.0
Rated speed rpm	: 500	Check tolerance	. 0.0
Pressure hPa	. , , , , , , , , , , , , , , , , , , ,		. 40.0
ressure nra	-	+ cm3/1000s.	: 12.0
ME A CLIDEMENT		†	
MEASUREMENT			
	505	† Aneroid pressure	
Rated speed rpm	: 500	† hPa	: -
		+ Rated speed rpm	: 500
Pressure hPa	: 850	+ Del. quantity	
rack travel mm	: 2.40	+ cm3/1000 strokes	: 139.5
Tolerance mm	: + 0.15	Tolerance	• • • • • • • • • • • • • • • • • • • •
·		+ cm3/1000 strokes	: + 1.0
Pressure hPa	: 550	+ Check tolerance	
	: 0.75		
rack travel mm		+ cm3/1000s.	: +- 4.0
Tolerance mm	: ← 0.10	Spreed	
		+ Tolerance	
			: 5.0
Start interlock		+ Check tolerance	
		+ cm3/1000s.	: 9.0
Rated speed rom	: > 100		
The space in		I	

STARTING FUEL DELIVERY

Rated speed rpm : 100 Del. quantity

cm3/1000 strokes : 247.5

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm: 5.00
Tolerance mm: + 0.10
Del. quantity

cm3/1000 strokes : 7.5

Tolerance

cm3/1000 strokes : +- 3.0

Check tolerance

cm3/1000s. : \leftarrow 6.0

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 14.05.97

Test oil

: ISO 4113

Combination No. : F 000 409 202

Injection pump

Pump designation : PES6A95D41ORS2923

EP type number : F 000 400 401

Governor

Governer design. : RQV300...1300AB1326L

Governer no. : F 000 420 302

Cust. part No. : A 028 074 35 02

Customer-spec. information

Customer : MBB

Pocor

: ON 366LA/Euroï

Power KW

: 150.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C

Tolerance "C

: 40 : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

: 173.5

Tolerance bar

: **←** 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter :

3.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure par : 26.0 Tolerance bar : +- 1.0

Prestroke mm : 3.20 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 19.00 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-69-129-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.45

Tolerance mm

: + 0.05

Del. quantity cm3/1000 strokes : 97.0

Tolerance

cm3/1000 strokes : + 1.0

: +- 3.0

Check tolerance cm3/1000S.

Spreed

Tolerance cm3/1000 strokes : 3.5	Tolerance mm : + 1.30
Check tolerance cm3/1000s. : 8.0	FULL LOAD DELIVERY AT FULL LOAD STOP
	Rated speed rpm : 1300
	+ Aneroid pressure
	+ hPa : 900
Rated speed rpm : 300	† Del. quantity
	+ cm3/1000 strokes : 97.0
Rack travel in mm: 6.60	Tolerance
Tolerance am : + 0.10	+ cm3/1000 strokes : + 1.0
Del. quantity	+ Check tolerance
cm3/1000 strokes : 13.0	+ cm3/1000s. : $+$ 3.0
Tolerance	Spreed
cm3/1000 strokes : + 2.0	† Tolerance
Check tolerance cm3/1000s. : +- 4.5	+ cm3/1000 strokes : 3.5
cm3/1000s. : +- 4.5 Spreed	- Check tolerance
Tolerance	$\frac{1}{1}$ cm3/1000s. : 8.0
cm3/1000 strokes : 5.5	\mathbf{I}
Check tolerance	
cm3/1909s. : 9.0	CONTROL LEVER
	control lever
(B) SETTING OF INJECTION PUMP	position degree : 62.0
WITH GOVERNOR	tolerance degree : +- 4.0
	t control lever
GUIDE SLEEVE TRAVEL	+ position degree : 113.0
	+ tolerance degree : + 4.0
Rated speed rpm : 1500	†
guide steeve	+ RATED SPEED
travel na : 9.55	rack travel mm : 12.50
Tolerance mm : + 0.05	+ Rated speed rpm : 1345
Rated speed rom : 300	† Tolerance 1/min : + 5
the same and the s	1
guide sleeve travel mm : 1.05	rack travel mm : 4.00
travel mm : 1.05 Tolerance mm : + 0.25	Rated speed rpm : 1520
TOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTOTO	† Tolerance 1/min : + 15
Rated speed rpm : 500	rack travel mm : 0.50
guide steeve	+ Tolerance mm : + 0.50
travel mm : 2.85	+ Rated speed rpm : 1640
Tolerance ma : +- 0.25	inacca opeca (pii)
Rated speed rpm : 750	+
guide sleeve	
travel mm : 4.85	+ LOW IDLE
Tolerance mm : → 0.10	
	+ control lever
GUIDE SLEEVE POSITION	position degree : 73.0
	tolerance degree : +- 4.0
control lever	+ control lever
position degree : - 1	position degree : 21.0
Rated speed rpm : 1366	tolerance degree : + 4.0
Rack travel in mm: 16.50	Setting point w/out bumper spring

Rated speed rpm	: 100	‡
CRT mm min.	: > 9.00	Ŧ
Testing:		‡
Rated speed rpm rack travel mm Tolerance mm	: 300 : 6.60 : + 0.10	† † †
Rated speed rpm	: 355	Ī
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1300 : 13.45 : + 0.05	+ + + + + + + + + + + + + + + + + + + +
Rated speed rpm rack travel mm Tolerance mm	: 750 : 13.45 : ← 0.05	† †
ANEROID/ALTITUDE COMPENSATOR TEST		†
SETTING		‡
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 13.50 : + 0.05	† † †
Rated speed rpm Pressure hPa	: 500 : -	‡
MEASUREMENT		‡
Rated speed rpm	: 500	‡
Pressure hPa rack travel mma Tolerance mmi	: 510 : 2.90 : ← 0.10	+
Pressure hPa rack travel mm Tolerance mm	: 270 : 1.30 : + 0.10	Ī
Start interlock		‡
Rated speed rpm Rated speed rpm	: > 100 : < 210	†
Check speed 1/min Check	: > 80	Ŧ
speed 1/min	: < 230	+

FUEL DELIVERY CHA	RACTER	ISTICS	
Aneroid pressure			•
hPa	:	-	
Rated speed rpm Del. quantity	•	500	
cm3/1000 strokes	:	49.0	
Tolerance			
cm3/1000 strokes Check tolerance	: +-	1.0	
cm3/1000s.	: +-	3.0	
Spreed	•	3.0	
Tolerance			
cm3/1000 strokes Check tolerance	:	3.5	
cm3/1000s.	:	8.0	
	•		
STARTING FUEL DEL	IVERY		
Rated speed rpm	•	100	
rack travel mm		14.20	
Tolerance mm	: +-	0.10	
Del. quantity		400.0	
cm3/1000 strokes Tolerance	:	108.0	
cm3/1000 strokes	: +-	7.5	
Check tolerance			
cm3/1000s.	: +-	10.0	
LOW IDLE			
Rated speed rpm	:	3 00	
Rack travel in mm	:	6.60	
Tolerance mm	: +-	0.10	
Del. quantity cm3/1000 strokes	:	472.0	
Tolerance	•	13.0	
cm3/1000 strokes	: +-	2.0	
Check tolerance			
cm3/1000s.	: +-	4.5	
Spreed			
Tolerance	•	5.5	
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	:	5.5	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 14.05.97

Test oil

: ISO 4113

Combination No.

: F 000 409 203

Injection pump

Pump designation : PES6A95D41ORS2923

EP type number

: F 000 400 401

Governor

Governer design. : RQV300...1300AB1326L

Governer no.

: F 000 420 302

Cust. part No. : A 028 074 36 02

Customer-spec. information

Customer

: MBB

: OM 366LA/EuroI Motor

Power KW

: 150.0

TEST BENCH REQUIREMENTS

Inlet line

: 4.2

Test oil inlet

temp. *C

Tolerance °C

: + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

: **←** 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 3.20 : + 0.05 Tolerance man

Check

tolerance mm : + 0.10

Rack travel in mm : 19.00 Tolerance ma : ← 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.45 : +- 0.05 Tolerance mm

Del. quantity cm3/1000 strokes :

97.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s.

: + 3.0

Spreed

Tolerance cm3/1000 strokes	: 3.5	Tolerance mm : +- 1.30
Check tolerance cm3/1000s.	: 8.0	FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1300
	**************************************	+ Aneroid pressure
Rated speed rpm	: 300	+ hPa : 900 + Del. quantity
Rack travel in m	- 4 40	+ cm3/1000 strokes : 97.0
Tolerance man		Tolerance + cm3/1000 strokes : +- 1.0
Del. quantity	. 1 0.10	Check tolerance
cm3/1000 strokes	• 13.0	+ cm3/1000s. : +- 3.0
Tolerance	. 13.0	Spreed
cm3/1000 strokes	· + 20	Tolerance
Check tolerance		- cm3/1000 strokes : 3.5
cm3/1000s.	: + 4.5	Check tolerance
Spreed	4.5	+ cm3/1000s. : 8.0
Tolerance		1
cm3/1000 strokes	: 5.5	1
Check tolerance		
cm3/100Gs.		CONTROL LEVER
		T control lever
(B) SETTING OF IN	ALIECTION DIMO	
WITH GOVERNOR	MECITON POMP	<pre>position degree : 62.0 tolerance degree : +- 4.0</pre>
MIIII GOACKIAOK		T coterante degree : 4.0
		T control lever
GUIDE SLEEVE TRAV	/FL	position degree : 113.0
	,	+ tolerance degree : + 4.0
Rated speed rpm	: 1500	+
guide sleeve		A RATED SPEED
travel mm	: 9.55	rack travel mm : 12.50
Tolerance mm	: ← 0.05	+ Rated speed rpm : 1345
		Tolerance 1/min : + 5
Rated speed rpm	: 300	1
guide sleeve		rack travel mm : 4.00
travel mm	: 1.05	Rated speed rpm : 1520
Tolerance mm	: ← 0.25	Tolerance 1/min : + 15
Rated speed rpm	: 500	t rack travel mm : 0.50
guide sleeve	- 	Tolerance mm : + 0.50
travel num	: 2.85	Rated speed rpm : 1640
Tolerance mm		+
Rated speed rim guide sleeve	: 750	Ī
travel mm	: 4.85	LOW IDLE
Tolerance mm		+
		†
GUIDE SLEEVE POSI	TTON	+ control lever
GOINE STEENE LOST	, I TOM	position degree : 73.0 tolerance degree : + 4.0
control lever		t control lever
position degree	: - 1	position degree : 21.0
Rated speed rpm		tolerance degree : + 4.0
		+
Rack travel in mm	16.50	Setting point w/out bumper spring

Rated speed rpm	: 100	
Naccu Specu i pai	. 100	FUEL DELIVERY CHARACTERISTICS
CRT mm min.	: > 9.00	
Testing:	4	Aneroid pressure
-	+	hPa : -
Rated speed rpm		- Rated speed rpm : 500
rack travel mm		- Del. quantity
Tolerance mm	: +- 0.10	- cm3/1000 strokes : 49.0
		Tolerance
Rated speed rpm	: 355	cm3/1000 strokes : + 1.0
	1	Check tolerance
TOPOUE CONTROL		+ cm3/1000s. : $+$ 3.0
TORQUE CONTROL	. 1700	Spreed
Rated speed rpm rack travel mm		Tolerance
Tolerance mm	: +- 0.05	- cm3/1000 strokes : 3.5
Tolerance mm	: - 0.05	- Check tolerance - cm3/1000s. : 8.0
Rated speed rpm	• 750	- cm3/1000s. : 8.0
rack travel mm		
Tolerance an		
roce, and the	0.03	STARTING FUEL DELIVERY
ANEROID/ALTITUDE		Datad and days at 400
COMPENSATOR TEST	1	Rated speed rpm : 100
COMPENSATOR TEST	1	rack travel mm : 14.20 Tolerance mm : +- 0.10
	1	Del. quantity
SETTING]	cm3/1000 strokes : 108.0
OLITING]	Tolerance
Rated speed rpm	: 500	cm3/1000 strokes : +- 7.5
Pressure hPa		- Check tolerence
rack travel mm	: 13.50	- cm3/1000s. : +- 10.0
Tolerance mm		- 10.00
Rated speed rpm	: 500	-
Pressure hPa	: -	
	+	- LOW IDLE
MEASUREMENT	+	-
	+	- Rated speed rpm : 300
Rated speed rpm	: 500	
	+	- Rack travel in mm : 6.60
Pressure hPa	: 510	Tolerance mm : + 0.10
rack travel mm	: 2.90	- Del. quantity
Tolerance mm	: + 0.10	- cm3/1000 strokes : 13.0
Pressure hPa	: 270	- Tolerance
rack travel am	: 1.30	- cm3/1000 strokes : + 2.0 - Check tolerance
Tolerance mm	: + 0.10	- cm3/1000s. : +- 4.5
TOCCT GITCC IMB	I	- Spreed
		- Tolerance
Start interlock	1	- cm3/1000 strokes : 5.5
		- Check tolerance
Rated speed rpm	: > 100	- cm3/1000s. : 9.0
Rated speed rpm		-
1	4	-
Check	4	
speed 1/min	:> 80	
Check	+	-
speed 1/min	: < 230 	End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 12.09.97 : ISO 4113

Combination No. : F 002 A0Z 040

Injection pump

Pump designation : PES4A95D32D/3RS288D

EP type number : 9 410 037 214

Governor

Governer design. : RSV475...1100ADC920R

: F CO2 A20 240 Governer no.

Cust. part No. : 3930147

Customer-spec. information : CDC Customer Motor : 4BT590 Power KW : 60.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 : +-Tolerance °C 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 Tolerance bar : ← 1.5

: 1 680 750 014 Test lines

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm Tolerance non : +- 0.05 Check tolerance mm : +- 0.10

Rack travel in mm : 10.50 : +- 1.50 Tolerance mm

: 1-3-4-2 Firing order

Phasing : 0-90-180-270

: ← 0.50 Tolerance

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00 Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 10.75

Tolerance mm : **←** 0.05

603

Del. quantity +	Aneroid pressure
cm3/1000 strokes : 87.0	hPa : -
	Del. quantity
Tolerance	cm3/1000 strokes : 87.0
cm3/1000 strokes : + 1.0	
CHD/1000 Strokes: 1.0	Tolerance
	cm3/1000 strokes : +- 1.0
Check tolerance	Check tolerance
$cm3/1000s$. : \leftarrow 3.0	cm3/1000s. : + 3.0
	Spreed
Spreed	Tolerance
+	cm3/1000 strokes : 3.5
Tolerance 1	Check tolerance
cm3/1000 strokes : 3.5	cm3/1000s. : 6.0
	. 0.0
Check tolerance	
cm3/1000s. : 6.0	
CHD/10003 0.0	CONTROL LEUED
 †	CONTROL LEVER
†	
· +	control lever
Rated speed rpm : 475	position degree : 114.0
1	tolerance degree : +- 4.0
Rack travel in mm: 5.30	• • • • • • • • • • • • • • • • • • • •
Tolerance mm : + 0.10	RATED SPEED
Del. quantity	rack travel mm : 9.70
cm3/1000 strokes : 16.5	
	Rated speed rpm : 1180
Tolerance	Tolerance 1/min : +- 5
cm3/1000 strokes : + 2.0	
Check tolerance	rack travel mm : 4.00
$cm3/1000s.$: \leftarrow 4.5	Rated speed rpm : 1250
Spreed	Tolerance 1/min : + 5
Tolerance	TOCCI GIBC (7 mill)
cm3/1000 strokes : 3.5	made Annual ma
	rack travel mm : 0.85
Check tolerance	Tolerance mm : + 0.55
cm3/1000s. : 5.5	Rated speed rpm : 1375
+	
+	rack travel mm : 4.00
(3) SETTING OF INJECTION PUMP	Rated speed rpm : 1260
WITH GOVERNOR	Tolerance 1/min : + 15
W2111 GOVEINION	TO COT GITCE TANTITY (5
Ţ	
†	
GUIDE SLEEVE POSITION	
+	LOW IDLE
1	
control lever	
position degree : - 3	control lever
Rated speed rpm : 800	position degree : 84.0
Tured speed (pill) 000	
Dock thought in many 0.50	tolerance degree : 4.0
Rack travel in mm: 0.50	
Tolerance mm : + 0.20 +	Control lever difference
+	Grad : 30.0
governor spring	tolerance degree : +- 6.0
pre-tension +	<u>-</u>
click setting x : 4.25	Setting point w/out bumper spring
	TO STITE POTITE WOOL BUILDER SPETING
	Pated speed ppm . 175
FILL LOAD DELTHERY AT FILL LOAD CTOD	Rated speed rpm : 475
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 4.80
+	Tolerance mm : + 0.10
Rated speed rpm : 1100	
Rated speed rpm : 1100	Rated speed rpm : 100

CRT mm min. : > 19.00

Testing:

Rated speed rpm 475 rack travel mm 5.30 Tolerance man : + 0.10

TORQUE CONTROL

Rated speed rpm : 1100 rack travel mm : 10.75 Tolerance mm : **←** 0.05

Rated speed rpm 750

STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm : 20.50 : + 0.50 Tolerance mm

Del. quantity cm3/1000 strokes : 121.0 Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : + 15.0

LOW IDLE

Rated speed rpm : 475

Rack travel in mom : 5.30 : + 0.10 Tolerance mm

Del. quantity

cm3/1000 strokes : 16.5

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.5

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 18.09.97 : ISO 4113

Combination No.

: F 002 A0Z 062

Injection pump

Pump designation : PES4A95D320/3RS2927

EP type number : F 002 A10 017

Governor

Governer design: : RSV475...1100A2C942R

6overner no. : F 002 A20 243

Cust. part No. : 3930142

Customer-spec. information : CDC

Customer

Motor Power KW

: 4BNA3.9 : 50.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance °C

: + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar :

Tolerance bar : +- 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

208.5

Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

Prestroke mm : Tolerance mm : +-Tolerance mm

: + 0.05

Check

tolerance mm

: + 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

Firing order

: 1-3-4-2

Phasing

: 0-90-180-270

Tolerance Check

: +- 0.50

tolerance *NW

: +- 0.75

Start of delivery blocking

*NW after s.o.d. : 7.25

Tolerance

: + 0.50

Check

tolerance *NW : $\leftarrow 0.75$

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 9.00

Tolerance mm : +-0.05

Del. quantity cm3/1000 strokes : 81.0	Aneroid pressure hPa : -
Tolerance cm3/1000 strokes : + 1.0	Del. quantity cm3/1000 strokes : 81.0 Tolerance
Check tolerance cm3/1000s. : + 3.0	cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 3.0
Spreed	Spreed Tolerance
Tolerance - 3.5	cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0
Check tolerance cm3/1000s. : 6.0	
	CONTROL LEVER
Rated speed rpm : 475	control lever position degree : 89.0 tolerance degree : + 4.0
Rack travel in mm : 5.10 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 13.5	RATED SPEED rack travel mm : 8.20 Rated speed rpm : 1175
Tolerance - cm3/1000 strokes : + 2.0 -	Tolerance 1/min : +- 5
Check tolerance cm3/1000s. : +- 4.5 Spreed	- rack travel mm : 4.00 - Rated speed rpm : 1240 -
Tolerance - cm3/1000 strokes : 3.5 - Check tolerance - cm3/1000S : 5.5 -	rack travel mm : 0.85 - Tolerance mm : +- 0.55 - Rated speed rpm : 1350
	rack travel mm : 4.00 Rated speed rpm : 1245
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance 1/min : +- 15
GUIDE SLEEVE POSITION -	LOW IDLE
control lever position degree : - 3 Rated speed rpm : 800	control lever position degree : 74.0 tolerance degree : + 4.0
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Control lever difference Grad: 15.0 tolerance degree: +- 6.0
governor spring pre-tension click setting x : 4.50	Setting point w/out bumper spring Rated speed rpm : 475
FULL LOAD DELIVERY AT FULL LOAD STOP	- rack travel mm : 4.60 - Tolerance mm : + 0.10
Rated speed rpm : 1100	- - Rated speed rpm : 100

CRT mm min. : > 19.00 Testina: Rated speed rpm : 475 rack travel mm 5.10 Tolerance mm : + 0.10TORQUE CONTROL 1100 Rated speed rpm : rack travel mm : 9.00 : **←** 0.05 Tolerance mm Rated speed rpm : 600 rack travel mm : 9.70 : + 0.10 Tolerance mm FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 600 Rated speed rpm : Del. quantity cm3/1000 strokes : 80.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. STARTING FUEL DELIVERY Rated speed rpm 100 20.50 rack travel mm : Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes : \leftarrow 10.0 Check tolerance cm3/1000s. : + 15.0 LOW IDLE Rated speed rpm : 475

Tolerance cm3/1000 strokes : +- 2.0Check tolerance cm3/1000s. : +- 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. 5.5

End of test specification sheet

Rack travel in man: 5.10 Tolerance mm : **←** 0.10 Del. quantity

cm3/1000 strokes : 13.5

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Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 07, 10, 97 : ISO 4113

Combination No.

: 9 407 083 290

Injection pump

Pump designation : PES6A80D320RS1271

EP type number : 9 400 083 058

Governor

Governer design. : RSV350...1000A1c2029

: -1R

Governer no.

: 9 420 083 285

Cust. part No. :

Customer-spec. information : MWM

Customer Motor

: D 229-6

TEST BENCH REQUIREMENTS

Inlet line

: 3.1

Test oil inlet

temp. °C

40

Tolerance °C

: +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

: 173.5

Tolerance bar

: +- 1.5

Test lines : 1 680 750 003

Outside diameter : 6.0

x inside diameter : 2.0 600

x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0

Tolerance bar : + 1.0

Prestroke mm : 2.25 Tolerance mm : **←** 0.05

Check

tolerance ma : +- 0.10

Rack travel in mm : 10.50

Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : ← 0.50

Check

tolerance *NW : **←** 0.75

Beginning of delivery differende

and maximum rack

Tolerance mm : 10.50 : + 1.50

Difference * CS : 4.50

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 9.75 Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 49.5

Tolerance	+ Tolerance
$cm3/1000$ strokes : $\leftarrow 0.5$	+ cm3/1000 strokes : + 0.5
	+ Check tolerance
Check tolerance	
cm3/1000s. : +- 2.0	+ Spreed
	+ Tolerance
Spreed	+ cm3/1000 strokes : 2.5
·	+ Check tolerance
Tolerance	+ cm3/1000s. : 4.0
cm3/1000 strokes : 2.5	T (m)/10003 4.0
CID 1000 SET ORES . 2.3	T
Charle And annua	†
Check tolerance	
cm3/1000s. : 4.0	+ CONTROL LEVER
	+
	+ control lever
	+ position degree : 58.0
Rated speed rpm : 350	+ tolerance degree : + 4.0
THE SECOND SECON	1 total and degree . 4.0
Reck travel in mm: 7.00	T southol laven
Tolerance mm : + 0.10	- control lever
	+ position degree : 108.0
Del. quantity	+ tolerance degree : +- 4.0
cm3/1000 strokes : 8.5	+
Tolerance	+ RATED SPEED
cm3/1000 strokes : + 1.5	+ rack travel mm : 8.70
Check tolerance	+ Rated speed rpm : 1045
$cm3/1000s.$: \leftarrow 3.5	+ Tolerance 1/min : + 5
Spreed	T locerance mann 3
Tolerance	T made described to 200
· · · · · · ·	+ rack travel mm : 4.00
cm3/1000 strokes : 4.0	Rated speed rpm : 1085
Check tolerance	† Tolerance 1/min : 4 15
cm3/1000s. : 6.0	+
	+ rack travel mm : 0.85
	+ Tolerance mm : + 0.55
(B) SETTING OF INJECTION PUMP	+ Rated speed rpm : 1200
WITH GOVERNOR	
	i
	1
GUIDE SLEEVE POSITION	LOW IDLE
GOIDE SEELAE 1 0011104	T COW TOLE
	T
auntaal lavon	†
control lever	+ control lever
position degree : - 3	+ position degree : 80.0
Rated speed rpm : 800	+ tolerance degree : +- 4.0
	+
Rack travel in mm: 0.65	+ control lever
Tolerance mm : + 0.35	position degree : 30.0
· · · · · · · · · · · · · · · · · · ·	tolerance degree : + 4.0
governor spring	1 total ance degree . The 4.0
	T Cotting paint town
pre-tension	+ Setting point w/out bumper spring
click setting x : 5.50	†
	+ Rated speed rpm : 350
	+ rack travel mm : 6.50
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance mm : + 0.10
	+
Rated speed rpm : 1000	Rated speed rpm : 100
Aneroid pressure	indiced specu (pill . 100
	T
b D=	
hPa : -	+ CRT mm min. : > 19.00
Del. quantity	+
	Testing:

Rated speed rpm rack travel mm Tolerance mm	: +	350 7.00 - 0.10
rack traval ==	•	2 00

rack travel mm : 2.00
Rated speed rpm : 555
Tolerance 1/min : + 30

TOR	WE	C	ON	TR	OL	
O						

Rated speed rpm : 1000 rack travel mm : 9.75 Tolerance mm : + 0.05

Rated speed rpm : 500 rack travel mm : 11.25 Tolerance mm : + 0.05

Rated speed rpm : 700 rack travel mm : 10.75 Tolerance mm : + 0.15

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure
hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 54.5
Tolerence
cm3/1600 strokes : + 1.5
Check tolerance

cm3/1000s. : + 3.0

Aneroid pressure

Rated speed rpm : 700
rack travel mm : 10.75
Tolerance mm : + 0.15
Del. quentity
cm3/1000 strokes : 54.0
Tolerance
cm3/1000 strokes : + 1.5
Check tolerance
cm3/1000s. : + 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00

LOW IDLE

Rated speed rpm	:	350
Rack travel in mm Tolerance mm Del. quantity	: +-	7.00 0.10
cm3/1000 strokes Tolerance	:	8.5
cm3/1000 strokes Check tolerance	: +-	1.5
cm3/1000s. Spreed Tolerance	; +-	3.5
cm3/1000 strokes Check tolerance	:	4.0
cm3/1000s.	:	6.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 16.09.97 Edition Test oil : ISO 4113

Combination No. : 0 400 876 432

Injection pump

Pump designation : PES6A90D410RS2757 EP type number : 0 410 896 086

Governor

Governer design. : RSV425...1000A1c2266

: L

: 0 420 232 598 Governer no.

Cust. part No. : 112059

Customer-spec. information : IVECO-FIAT Customer

Protor : 8065.25.080

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

temp. °C 40 Tolerance *C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 : + 1.5 bar Tolerance bar

Test lines : 1 680 750 014

Outside diameter: 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 2.30 : +- 0.05 Tolerance mm Check

tolerance mm

: + 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

: 1-5-3-6-2-: 4 Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm : 11.80 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 90.5

Tolerance cm3/1000 strokes : +- 0.5

G12

Check tolerance cm3/1000s. : + 2.5	Check tolerance cm3/1000s. : +- 2.5 Spreed Tolerance
Tolerance cm3/1000 strokes : 3.0	cm3/1000 strokes : 3.0 Check tolerance cm3/1000s. : 5.0
Check tolerance cm3/1000s. : 5.0	CONTROL LEVER
Rated speed rpm : 475	control lever position degree : 108.0 tolerance degree : +- 4.0
Rack travel in mm : 6.90 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 13.0	RATED SPEED rack travel mm : 10.80 Rated speed rpm : 1045
Tolerance + 3.0 + Check tolerance + 5.0 + 5.0	Tolerance 1/min : +- 5 rack travel mm : 4.00
Spreed Tolerance cm3/1000 strokes: 2.5	Rated speed rpm : 1105 Tolerance 1/min : + 15 rack travel mm : 0.85
Check tolerance cm3/1000s. : 4.5	Tolerance mm : + 0.55 Rated speed rpm : 1240 rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1135 Tolerance 1/min : + 15
GUIDE SLEEVE POSITION	LOW IDLE
control lever position degree : -3 Rated speed rpm : 3CO Rack travel in mm : 0.50	control lever position degree : 82.0 tolerance degree : + 4.0
Tolerance mm : + 0.20	Setting point w/out bumper spring
governor spring pre-tension click setting x : 4.75	Rated speed rpm : 475 rack travel mm : 6.40 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 100
Rated speed rpm : 1000 Aneroid pressure hPa : 900	CRT mm min. :> 19.50 Testing:
Del. quantity cm3/1000 strokes : 90.5 Tolerance	Rated speed rpm : 475 rack travel mm : 6.90 Tolerance mm : +- 0.10
cm3/1000 strokes : + 0.5	rack travel mm : 2.00

Rated speed rpm	:	650
Tolerance 1/min	:	← 30

TORQUE CONTROL		
Rated speed rpm	:	1000
rack travel mm	:	11.80

rack travel nm : 11.80 Tolerance nm : + 0.05

Rated speed rpm : 1000 rack travel mm : 12.30 Tolerance mm : + 0.10

Rated speed rpm : 500

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 1000
Pressure inPa : 900
rack travel mm : 11.30
Tolerance mm : + 0.10

Rated speed rpm : 1000
Pressure hPa : 900
rack travel mm : 11.80
Tolerance mm : + 0.05

MEASUREMENT

Rated speed rpm : 1000

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75 Del. quantity cm3/1000 strokes : 90.0

Tolerance

cm3/1000 strokes : + 5.0

Check tolerance

cm3/1000s. : \leftarrow 8.0

LOW IDLE

Rated speed rpm : 475

Rack travel in mm: 6.90

Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 13.0 Tolerance cm3/1000 strokes : \leftarrow 3.0 Check tolerance cm3/1000s. 5.0 Spreed Tolerance cm3/1000 strokes : 2.5 Check tolerance

cm3/1000s.

End of test specification sheet

4.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 30.04.97 Test oil : ISO 4113

Combination No. : 0 400 876 433

Injection pump

Pump designation : PES6A95D32ORS2832 EP type number : 0 410 896 897

Governor

Governer design. : RSV500...1100A5C883R

Governer no. : 0 420 233 349

Cust. part No. :

Customer—spec. information Customer : SISU Motor : 62000E Power KW : 136.0

TEST BENCH REQUIREMENTS

Inlet line : 2.3

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.55
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Beginning of delivery differende

and maximum rack

travel : 10.50
Tolerance mm : + 1.50
Difference * CS : 5.00

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm: 12.55
Tolerance mm: + 0.10

Del. quantity +	Aneroid pressure
cm3/1000 strokes : 109.0	hPa : -
1	Del. quantity
Tolerance	cm3/1000 strokes : 109.0
cm3/1000 strokes : +- 1.0	Tolerance
1	cm3/1000 strokes : +- 1.0
Check tolerance	
	Check tolerance
$cm3/1000s$. : \leftarrow 3.0 $+$	cm3/1000s. : $+$ 3.0
	Spreed
Spreed	Tolerance
+	cm3/1000 strokes : 3.5
Tolerance	Check tolerance
cm3/1000 strokes : 3.5	cm3/1000s. : 8.0
+	
Check tolerance	
cm3/1000s. : 8.0	
· +	CONTROL LEVER
1	control lever
Rated speed rpm : 500	position degree : 102.5
	tolerance degree : + 4.0
Rack travel in mm: 3.80	total arise degree 4.0
Tolerance mm : + 0.10	RATED SPEED
Del. quantity	
cm3/1000 strokes : 16.0	rack travel mm : 10.30
	Rated speed rpm : 1115
Tolerance +	Tolerance 1/min : +- 5
cm3/1000 strokes : + 2.0 +	
Check tolerance	rack travel mm : 4.00
cm3/1000s. : + 4.5	Rated speed rpm : 1175
Spreed	Tolerance 1/min : + 15
Tolerance +	
cm3/1000 strokes : 5.5	rack travel mm : 0.85
Check tolerance	Tolerance mm : \leftarrow 0.55
cm3/1000s. : 9.0	Rated speed rpm : 1300
1	
<u> </u>	
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	
	LOW IDLE
1	27H 27LL
I	
GUIDE SLEEVE POSITION	control lever
AATAP OPPEAR I ANTITOIA	position degree : 77.5
Ť	
control lever	tolerance degree : +- 4.0
	The set Assess
position degree : -3	Testing:
Rated speed rom : 300 +	
+	Rated speed rpm : 500
Rack travel in mm: 0.50	rack travel mm : 3.80
Tolerance mm : +- 0.20 +	Tolerance mm : +- 0.10
-dim	
governor spring	rack travel mm : 2.00
pre-tension +	Rated speed rpm : 515
click setting x : 3.75	Tolerance 1/min : + 30
1	
	SET IDLE AUXILIARY SPRING
FULL LOAD DELIVERY AT FULL LOAD STOP	www. nwngaunni WinditW
	rack travel mm : 2.00
Rated speed rpm : 700	. Service min . C.UU
The control of the tent of the	

TORQUE CONTROL

Rated speed rpm : 700 rack travel nm : 12.55 Tolerance nm : + 0.10

Rated speed rpm : 1070 rack travel mms : 10.80 Tolerance mms : + 0.05

Rated speed rpm : 1070 rack travel nmm : 11.30 Tolerance mmm : +- 0.10

Rated speed rpm : 1000 rack travel mm : 11.75 Tolerance mm : 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 900
rack travel mm : 12.55
Tolerance mm : + 0.10

Rated speed rpm : 500
Pressure hPa : rack travel mm : 10.85
Tolerance mm : 10.10

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 575 rack travel mm : 11.30 Tolerance mm : + 0.15

Pressure hPa : 700 rack travel mm : 12.00 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 79.5
Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : \leftarrow 3.0

STARTING FUEL DELIVERY

ESS test: With 12 V solenoid activated, rack must reach start position in max. control lever setting.

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 1.00 Del. quantity

cm3/1000 strokes : 201.0 Tolerance

cm3/1000 strokes : +- 7.5 Check tolerance

cm3/1000s. : +- 10.0

LOW IDLE

Rated speed rpm : 500

Rack travel in mm : 3.80
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 16.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance

Check tolerance cm3/1000s. : + 4.5
Spreed
Tolerance

cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 01.10.97 Test oil : ISO 4113

Combination No. : 0 400 876 434

Injection pump

Pump designation: PES6A95D410RS2864 EP type number : 0 410 896 888

Governor

Governer design. : RSV400...1050A8C2263

: -11L

60verner no. : 0 420 232 635

Cust. part No. : 87 800 972

Customer spec. information Customer : NH Motor : P 396 Power KW : 176.0

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar 208.5 Tolerance bar : **←** 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm 2.60 Tolerance mm : +- 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: Tolerance mm : ← 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery mark

Tolerance : **←** 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 70G

Rack travel in mm: 13.70 Tolerance mm : \leftarrow 0.10

Del. quantity		+ Aneroid pressure	
cm3/1000 strokes	: 135.0	+ hPa	: 1200
		+ Del. quantity	
Tolerance		+ cm3/1000 strokes	: 135.0
cm3/1000 strokes	: ← 1.0	+ Tolerance	
		+ cm3/1000 strokes	: +- 1.0
Check tolerance		+ Check tolerance	
cm3/1000s.	: ← 3.0	+ cm3/1000s.	: - 3.0
		Spreed	7.5
Spreed		Tolerance	
		- cm3/1000 strokes	: 3.5
Tolerance		+ Check tolerance	
cm3/1000 strokes	: 3.5	+ cm3/1000s.	: 8.0
		+	
Check tolerance		+	
cm3/1000s.	: 8.0	+	
		+ CONTROL LEVER	
		+	
		+ control lever	
Rated speed rpm	: 450	position degree	
		+ tolerance degree	: +- 4.0
Rack travel in mm		+	
Tolerance ma	: +- U.10	Ť	
Del. quantity	42.0	+ ASSEMBLY GOVERNOR	SETTING
cm3/1000 strokes	: 12.0	†	
Tolerance	. 22	+ Rated speed rpm	: 1095
cm3/1000 strokes	: - 2.0	† rack travel mm	: 11.10
Check tolerance		†	44.5
cm3/1000s.	: ← 4.5	+ Rated speed rpm	: 1165
Spreed		+ Tolerance 1/min	
Tolerance		+ rack travel mm	: 4.00
cm3/1000 strokes	: 5.5	†	0.05
Check tolerance	: 9.0	rack travel mm	: 0.85
cm3/1000s.	: 9.0	Tolerance ma	: + 0.55
		Rated speed rpm	: 1300
(B) SETTING OF IN	DECTION DIME	T	
WITH GOVERNOR	NECITON FORF	T Rated speed rpm	: 1096
MILLI GOACUIACK			: 1096 : 11.10
		f rack travel mm	. 11.10
		Rated speed rpm	: 1166
GUIDE SLEEVE POSI	TION	Tolerance 1/min	: +- 5
		rack travel mm	4.00
			7.00
control lever		+ rack travel mm	: 0.85
position degree	: - 3	+ Tolerance mm	: + 0.55
Rated speed rpm		+ Rated speed rpm	: 1300
• • • • •		+	·
Rack travel in mm	2: 0.50	+	
Tolerance mm	: - 0.20	Rated speed rpm	: 1097
		rack travel mm	: 1097 : 11.10
governor spring		+	
pre-tension		+ Rated speed rpm	: 1167
click setting x	: 4.50	+ Tolerance 1/min	: +- 5
		+ rack travel mm	: 4.00
		†	
FULL LOAD DELIVER	Y AT FULL LOAD STOP	rack travel mm	: 0.85
	700	+ Tolerance mm	: +- 0.55
Rated speed rpm	: 700	+ Rated speed rpm	: 1300
		+	

Rated speed rpm	: 1098
rack travel man	: 11.10
Rated speed rpm Tolerance 1/min rack travel man	: +- 5
rack travel mm	: 0.85
Tolerance mm	: + 0.55
Rated speed rpm	: 1300
Rated speed rpm	: 1099
rack travel mm	: 11.10
Rated speed rpm	: 1169
Tolerance 1/min	: + 5
rack travel mm	: 4.00
rack travel mm Tolerance mm Rated speed rom	: + 0.55 : 1300 : 1099 : 11.10 : 1169 : + 5 : 4.00 : 0.85 : + 0.55 : 1300 : 1170 : + 5 : 4.00 : 0.85 : + 0.55 : 1300
Rated speed rpm	: 1100
rack travel mma	: 11.10
Rated speed rpm	: 1170
Tolerance 1/min	: +- 5
rack travel mm	: 4.00
rack travel mm	: 0.85
Tolerance nom	: + 0.55
Rated speed rom	: 1300
LOW IDLE	
control lever position degree tolerance degree	: 78.0 : + 4.0
Testing:	-
Rated speed rpm	: 450
rack travel mm	: 5.75
Tolerance mm	: + 0.10
rack travel mm Rated speed rpm Tolerance 1/min	
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 700 - : 13.70 - : + 0.10

Rated speed rpm	: 500
rack travel mm Tolerance mm	: 13.75 : ← 0.10
Rated speed rpm	: 1050
rack travel mm Tolerance mm	: 1050 : 11.20 : + 0.05
Rated speed rpm rack travel mm	: 12.50
Tolerance mm	: + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 500 : 1200
rack travel mm	: 13.75
Tolerance mm	: - 0.10
Rated speed rpm Pressure hPa	: 500
rack travel mm	: 9.75
Tolerance num	: 0.05
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa	: 650
rack travel mm Tolerance mm	: 12.65 : + 0.05
Pressure hPa	: 450
rack travel non	: 11.10
Tolerance mm	: +- 0.20
FUEL DELIVERY CHA	PACTEDISTICS
Aneroid pressure	•
Rated speed rpm	: 500
Del. quantity cm3/1000 strokes	: 80.0
Tolerance cm3/1000 strokes	: ← 1.0
Check tolerance	
cm3/1000s.	: +- 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.25
Tolerance mm : + 0.75
Del. quantity
cm3/1000 strokes : 164.0
Tolerance
cm3/1000 strokes : + 8.0
Check tolerance
cm3/1000s. : + 11.0

LOW IDLE

Rated speed rpm : 450 Rack travel in mm: 5.75 Tolerance ma : + 0.10 Del. quantity cm3/1000 strokes : 12.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes: 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 01.10.97 : ISO 4113

Combination No. : 0 400 876 435

Injection pump

Pump designation : PES6A95D410RS2864 EP type number : 0 410 896 888

Governor

Governer design. : RSV400...1050A8C2263

: -12L

: 0 420 232 636 Governer no.

Cust. part No. : 87 800 971

Customer spec. information : NH Customer

: 7.5 L Motor : 185.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 1.3

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.60 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Rated speed rpm : 800

Rack travel in mm: 13.45 Tolerance mm : + 0.10

Del. quantity cm3/1000 strokes : 139.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 3.0

1	
Canad	Tolerance
Spreed	cm3/1000 strokes : 3.5
Talanana	Check tolerance
Tolerance	cm3/1000s. : 8.0
cm3/1000 strokes : 3.5	
Charle delegance	
Check tolerance cm3/1000s. : 8.0	CONTROL I FILE
cm3/1000s. : 8.0	CONTROL LEVER
	and the trans
†	control lever
Poted ground non	position degree : 94.0
Rated speed rpm : 650	tolerance degree : + 4.0
Rack travel in mm : 4.90	
Tolerance non : + 0.10	ACCEPTAL V. COMPONIOD COTTENIO
Del. quantity	ASSEMBLY GOVERNOR SETTING
cm3/1000 strokes : 20.0	Dated around non a 4000
Tolerance	Rated speed rpm : 1058 rack travel mm : 11.40
cm3/1000 strokes : + 2.0	rack travel mm : 11.40
Check tolerance	Poted cheed 4004
cm3/1000s. : +- 4.5	Rated speed rpm : 1091
Spreed 4.5	Tolerance 1/min : + 5
Tolerance	rack travel mm : 4.00
cm3/1000 strokes : 5.5	mode through any and 0.05
Check tolerance	rack travel mm : 0.85
cm3/1000s. : 9.0	Tolerance mm : + 0.55
CIRS / 10005. : 9.0	Rated speed rpm : 1250
I	
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1059
WITH GOVERNOR	rack travel mm : 10.39
I I	rack travel into : 11.40
I	Rated speed rpm : 1092
	Tolerance 1/min : +- 5
GUIDE SLEEVE POSITION	rack travel mm : 4.00
AND DESCRIPTION	Tack Clavet inti . 4.00
1	rack travel mm : 0.85
control lever	Tolerance mm : +- 0.55
position degree : -3	Rated speed rpm : 1250
Rated speed rpm : 800	racea speed (pi)
1	
Rack travel in mm: 0.50	Rated speed rpm : 1060
Tolerance mm : + 0.20	rack travel mm : 11.40
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
governor spring	Rated speed rpm : 1093
pre-tension +	Tolerance 1/min : + 5
click setting x : 3.50	rack travel mm : 4.00
+	
	rack travel mm : 0.85
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.55
+	Rated speed rpm : 1250
Rated speed rpm : 800	, , , , , , , , , , , , , , , , , , , ,
Aneroid pressure	
hPa : 1200 +	Rated speed rpm : 1061
Del. quantity	rack travel mm : 11.40
cm3/1000 strokes : 139.5	
Tolerance	Rated speed rpm : 1094
cm3/1000 strokes : + 1.0 +	Tolerance 1/min : + 5
Check tolerance +	rack travel mm : 4.00
cm3/1000s. : +- 3.0 +	
Spreed	rack travel mm : 0.85
·	

Tolerance mm Rated speed rpm	: ← 0.55 : 1250	rack trave Tolerance
Rated speed rpm rack travel ma	: 1062 : 11.40	ANEROID/AL COMPENSATOR
Rated speed rpm Tolerance 1/min rack travel mm	: 1095 : +- 5 : 4.00	SETTING
rack travel mm Tolerance mma Rated speed rpm	: 0.85 : + 0.55	Rated speed Pressure hi rack trave Tolerance n
Rated speed rpm rack travel mm	: 1063 : 11.40	Rated speed Pressure hi rack travel
Rated speed rpm Tolerance 1/min rack travel mm	: 1096 : ← 5 : 4.00	Tolerance m
rack travel mm Tolerance mma Rated speed rpm	: 0.85 : + 0.55	Pressure his rack travel
LOW IDLE		Pressure hi
control lever position degree tolerance degree	: 75.0 : + 4.0	Tolerance m
Testing:		
Ruted speed rom rack travel mm Tolerance mm	: 650 : 4.90 : + 0.10	Arieroid pre hPa Rated speed
rack travel mm Rated speed rpm Tolerance 1/min	: 740	Del. quanti cm3/1000 st Tolerance cm3/1000 st Check toler
TORQUE CONTROL Rated speed rpm rack travel mm	: 13.45	
Tolerance mm Rated speed rpm	: + 0.10 : 500	+ STARTING FU + Rated speed
rack travel mm Tolerance mm		+ rack travel + Tolerance m + Del. quanti
Rated speed rpm rack travel mm Tolerance mm	: 1025 : 11.90 : + 0.05	+ cm3/1000 st + Tolerance + cm3/1000 st
Rated speed rpm	: 1025	+ Check toler + cm3/1000s.

rack travel mm Tolerance mm	: 12.40 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 13.50 : + 0.10
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 8.10 : + 0.05
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerunce mm	: 750 : 12.40 : + 0.05
Pressure hPa rack travel mm Tolerance mm	: 550 : 10.00 : ← 0.20
rack travel mm	: 10.00 : + 0.20
rack travel mm Tolerance mm FUEL DELIVERY CHA Ameroid pressure	: 10.00 : + 0.20
rack travel mm Tolerance mm FUEL DELIVERY CHA Areroid pressure hPa Rated speed rpm	: 10.00 : + 0.20
FUEL DELIVERY CHA Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 10.00 : + 0.20 RACTERISTICS : 500
rack travel mm Tolerance mm FUEL DELIVERY CHA Areroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 10.00 : + 0.20 RACTERISTICS : - : 500 : 68.5
rack travel mm Tolerance mm FUEL DELIVERY CHA Areroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: 10.00 : + 0.20 RACTERISTICS : - : 500 : 68.5
rack travel mm Tolerance mm FUEL DELIVERY CHA Areroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	: 10.00 : + 0.20 RACTERISTICS : 500 : 68.5 : + 1.0 : + 3.0
rack travel mm Tolerance mm FUEL DELIVERY CHA Areroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm	: 10.00 : + 0.20 RACTERISTICS : 500 : 68.5 : + 1.0 : + 3.0
rack travel mm Tolerance mm FUEL DELIVERY CHA Areroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 10.00 : + 0.20 RACTERISTICS : 500 : 68.5 : + 1.0 : + 3.0 IVERY : 100 : 20.25 : + 0.75
rack travel mm Tolerance mm FUEL DELIVERY CHA Areroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. STARTING FUEL DEL Rated speed rpm rack travel mm Tolerance mm Del. quantity	: 10.00 : + 0.20 RACTERISTICS : 500 : 68.5 : + 1.0 : + 3.0 IVERY : 100 : 20.25 : + 0.75

LOW IDLE

Rated speed rpm	:	650
Rack travel in mm	:	4.90
Tolerance ma	: +-	0.10
Del. quantity		
cm3/1000 strokes	:	20.0
Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance	-	3,70
cm3/1000s.	: +-	4.5
Spreed	-	
Tolerance		
7 44000	•	5.5
Check tolerance	•	
cm3/1000s.	•	9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 01.10.97 Test oil : ISO 4113

Combination No. : 0 400 876 436

Injection pump

Pump designation : PES6A95D32CRS2684 EP type number : 0 410 896 917

Governor

Governer design. : RSV325...1050A0c899R

Governer no. : 0 420 233 352

Cust. part No. : 8363 54719

Customer-spec. information Customer : SISU : 612 DS : 148.0 Motor Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inler

temp. °C 40 Tolerance °C · + 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.0

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

: 173.5 bar Tolerance bar

Test Lines : 1 680 750 014

Outside diameter: 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.55 : +- 0.05 Tolerance mm Check tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance m_1 : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance "NW : +- 0.75

Beginning of delivery differende

Difference * CS : 5.00

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 8.00 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 66.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s. : +- 3.0
Spreed
Tolerance cm3/1000 strokes : 3.5
Check tolerance : 8.0
Rated speed rpm : 325
Rack travel in mm: 4.70 Tolerance mm : + 0.10 Del. quantity
cm3/1000 strokes : 15.0
Tolerance cm3/1000 strokes : +- 2.0
Check tolerance cm3/1000s. : +- 4.5 Spreed
Tolerance cm3/1000 strokes : 5.5
Check tolerance cm3/1000s. : 9.0
(B) SETTING OF INJECTION PUMP WITH GOVERNOR
GUIDE SLEEVE POSITION
control lever position degree : - 3 Rated speed rpm : 800
position degree : - 3
position degree : - 3 Rated speed rpm : 800 Rack travet in mm : G.50
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension
position degree : - 3 Rated speed rpm : 800 Rack travel in mm: 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050 Aneroid pressure hPa : -
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 5.00 FULL LOAD DELIVERY AT FULL LOAD STOP Rated speed rpm : 1050 Aneroid pressure

cm3/1000s. Spreed	: + 3.0
Tolerance cm3/1000 strokes	: 3.5
Check tolerance cm3/1000s.	: 8.0
CONTROL LEVER	
control lever position degree tolerance degree	: 94.0 : + 4.0
RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 6.95 : 1095 : + 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1145 : ← 15
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 1295
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1150 : +- 15

LOW IDLE

Check tolerance

control lever
position degree : 76.0
tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 325 rack travel mm : 4.15 Tolerance mm : + 0.10

Testing:

Rated speed rpm : 325 rack travel mm : 4.70 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 450
Tolerance 1/min : + 30

TORQUE CONTROL

Rated speed rpm : 1050 rack travel mm : 8.00 Tolerance mm : + 0.05

Rated speed rpm : 500 rack travel mm : 8.75 Tolerance mm : + 0.05

Rated speed rpm : 840 rack travel mm : 8.30 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : - 500

Del. quantity

cm3/1000 strokes : 58.5

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : + 4.0

rack travel mm : 8.30 Tolerance mm : +- 0.10

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mms : 20.25 Tolerance mms : + 0.75

LOW IDLE

Rated speed rpm : 325

Rack travel in mm : 4.70 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 15.0

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance cm3/1000s. : + 4.5

Spreed

Tolerance

cm3/1000 strokes : 5.5

Check tolerance

cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 01.10.97 Test oil : ISO 4113

combination No. : 0 400 876 437

Injection pump

Pump designation : PES6A95D32ORS2806 EP type number : 0 410 896 898

6overnor

Governer design. : RSV375...1125A0C900R

Governer no. : 0 420 233 353

Cust. part No. : 8368 54720

Customer—spec. information Customer : SISU Motor : 620D Power KW : 88.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.55
Tolerance mm : + 0.05
Check

tolerance mm

Rack travel in mm : 10.50

Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

. 4

Phasing : 0-60-120-180-240

: -300

: + 0.10

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Beginning of delivery differende

Difference * CS : 5.00

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 9.05
Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 74.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : + 3.0 Spreed	Check tolerance cm3/1000s. : + 3.0 Spreed Tolerance cm3/1000 strokes : 3.5
Tolerance : 3.5	Check tolerance : 8.0
Check tolerance cm3/1000s. : 8.0	CONTROL LEVER
	+
Rated speed rpm : 375	control lever position degree : 90.0 tolerance degree : + 4.0
Rack travel in mm: 4.00	†
Tolerance mm : + 0.10	+ RATED SPEED
Del. quantity	+ rack travel mm : 8.00
cm3/1000 strokes : 14.0	Rated speed rpm : 1145
Tolerance : +- 2.0	Tolerance 1/min : + 5
Check tolerance	The state of the s
cm3/1000s. : + 4.5	rack travel mm : 4.00 Rated speed rpm : 1195
Spreed	Tolerance 1/min : + 15
Tolerance	T rocer diffe 17 mills . +- 15
cm3/1000 strokes : 5.5	rack travel mm : 0.85
Check tolerance	+ Tolerance mn: : + 0.55
cm3/1000s. : 9.0	+ Rated speed rpm : 1350
	1 1000
(B) SETTING OF INJECTION PUMP WITH GOVERNOR GUIDE SLEEVE POSITION	Rated speed rpm : 1200 Tolerance 1/min : + 15
COLDE OFFERE LOSTITUA	LOW IDLE
control lever	+
position degree : - 3	† control lever
Rated speed rpm : 800	+ position degree : 71.0
Pauls Annual in an a C. 50	tolerance degree : + 4.0
Rack travel in num: 0.50 Tolerance mm : + 0.20	Setting point w/out bumper spring
governor spring	Rated speed rpm : 375
pre-tension	rack travel mm : 3.50 Tolerance mm : + 0.10
click setting x : 4.00	+ Tolerance mm : + 0.10
	+
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 100
Rated speed rpm : 1100	+ CRT man min. : > 19.50
Aneroid pressure	Testing:
· ·	- Cocing.
hPa : - Del. quantity	Rated speed rpm : 375
cm3/1000 strokes : 74.0	rack travel mm : 4.00 Tolerance mm : + 0.10
Tolerance	Tolerance mm : + 0.10
cm3/1000 strokes : +- 1.0	+
	rack travel mm : 2.00

Rated speed rpm	:		455
Tolerance 1/min	:	+-	30

TORQUE CONTROL Rated speed rpm : rack travel mm : 1100

9.05 Tolerance mm : **←** 0.05

Rated speed rpm 500 rack travel mm 9.35 : + 0.05 Tolerance mm

Rated speed rpm 980 rack travel mm 9.00 : + 0.10 Tolerance am

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm 500

Del. quantity cm3/1000 strokes : 58.5

Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.0 : +-

STARTING FUEL DELIVERY

Rated speed rpm 100 20.25 rack travel mm Tolerance mm : **←** 0.75

Del. quantity

cm3/1000 strokes : 200.0

Tolerance

cm3/1000 strokes : + 8.0

Check tolerance

cm3/1000s. : + 11.0

LOW IDLE

Rated speed rpm : 375

Rack travel in mm: 4.00 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 14.0

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : +- 4.5

Spreed Tolerance

cm3/1000 strokes : 5.5

Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 01, 10, 97 : ISO 4113

Combination No. : 0 400 876 438

Injection pump

Pump designation : PES6A95D32ORS2806 EP type number : 0 410 896 898

Governor

Governer design. : RSY500...1100A0c901R

Governer no. : 0 420 233 354

Cust. part No. : 8368 54721

Customer-spec. information Customer : SISU : 620DS Motor Power KW : 125.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

: 173.5 bar : **←** 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm 2.55 : + 0.05 Tolerance mm Check tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : + 0.75

Beginning of delivery differende

Difference * CS : 5.00

BASIC SETTING

Raced speed rpm : 1100

Rack travel in mm: 11.20 Tolerance mm: \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 96.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : + 3.0	- Check tolerance - cm3/1000s. : +- 3.0 - Spreed
Spreed	Tolerance : 3.5
Tolerance cm3/1000 strokes : 3.5	Check tolerance cm3/1000s. : 8.0
Check tolerance cm3/1000s. : 8.0	
	CONTROL LEVER
Rated speed rpm : 500	control lever position degree : 85.0 tolerance degree : +- 4.0
Rack travel in mm: 5.50	•
Tolerance mm : + 0.10	- RATED SPEED
Del. quantity cm3/1000 strates : 25.0	rack travel mm : 10.15
Tolerance	Rated speed rpm : 1145 Tolerance 1/min : +- 5
cm3/1000 strokes : +- 2.0	· !Oterance !/min : 5
Check tolerance	rack travel mm : 4.00
cm3/1000s. : + 4.5	Rated speed rpm : 1185
Spreed	Tolerance 1/min : + 15
Tolerance cm3/1900 strokes : 5.5	- rack travel mm : 0.85
Check tolerance	Tolerance mm : + 0.55
cm3/1000s. : 9.0	Rated speed rpm : 1345
+	
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 4.00 Rated speed rpm : 1195 Tolerance 1/min : + 15
GUIDE SLEEVE POSITION	LOW IDLE
t de la constitución de la const	
control lever + 3 + 4	control lever
Rated speed rpm : 800	position degree : 67.0
†	tolerance degree : + 4.0
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Setting point w/out bumper spring
governor spring	Rated speed rpm : 500
pre-tension +	rack travel mm : 5.00 Tolerance mm : - 0.10
click setting x : 2.25	Tolerance m : \leftarrow 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 100
Parad anal and 4420	CRT mm min. : > 19.50
Rated speed rpm : 1100 Aneroid pressure hPa : -	Testing:
Del. quantity	Rated speed rpm : 500
cm3/1000 strokes : 96.0	rack travel mm : 5.50
Tolerance	rack travel mm : 5.50 Tolerance mm : + 0.10
cm3/1000 strokes : + 1.0	
+	rack travel mm : 2.00

Rated speed rpm	: 570
Tolerance 1/min	: ← 30
TORQUE CONTROL Rated speed rpm rack travel man Tolerance man	: 1100 : 11.20 : ← 0.05

Rated speed rpm : 500 rack travel mm : 12.10 Tolerance mm : + 0.05

Rated speed rpm : 790 rack travel mm : 11.60 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	:	-
Rated speed rpm Del. quantity	:	500
cm3/1000 strokes	:	92.5

Tolerance cm3/1000 strokes : + 2.0 Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.25
Tolerance mm : + 0.75
Del. quantity
cm3/1000 strokes : 195.0
Tolerance
cm3/1000 strokes : + 8.0

cm3/1000s. : +- 11.0

Check tolerance

LOW IDLE

Rated speed rpm : 500

Rack travel in mm : 5.50
Tolerance mm : + 0.10
Del. quantity
cm3/1000 strokes : 25.0

Tolerance cm3/1000 strokes : +- 2.0

Check tolerance
cm3/1000s. : + 4.5
Spreed
Tolerance
cm3/1000 strokes : 5.5
Check tolerance
cm3/1000s. : 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 31.07.97 : ISO 4113

Combination No. : 0 400 876 440

Injection pump

Pump designation : PES6A90D410RS2757 : 0 410 896 086

EP type number

Governor

Governer design.

: RSV425...1G75A1C2266

: -2L

Governer no.

: 0 420 232 640

Cust. part No. : 99459159

Customer-spec. information

Customer

: IVECO-FIAT

Motor

: 8065.25.085

Power KU

: 104.0

TEST BENCH REQUIREMENTS

Inlet line

: 1.3

Test oil inlet

temp. °C

40

Tolerance °C

Overflow valve

: 1 419 992 198

Inlet press. bar :

1.5

Test nozzle holde

assembly

: 0 681 343 009

Opening pressure

bar

173.5

Tolerance bar

1.5

Test lines

: 1 680 750 014

Outside diameter :

6.0

x inside diameter : 2.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar :

Tolerance bar : + 1.0

Prestroke mm 2.30

Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1075

12.90 Rack travel in mm:

: + 0.05Tolerance mm

Del. quantity

cm3/1000 strokes : 102.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0	+ Check tolerance + cm3/1000s. : + 3.0
	+ Spreed : - 3.0
Spreed	+ Tolerance
Tolerance	+ cm3/1000 strokes : 3.5 + Check tolerance
cm3/1000 strokes : 3.5	cm3/1000s. : 8.0
Check tolerance	+
cm3/1000s. : 8.0	
	+ CONTROL LEVER
	control lever
Rated speed rpm : 425	position degree : 106.0
Rack travel in mm : 7.50	tolerance degree : +- 4.0
Tolerance mm : + 0.10	T RATED SPEED
Del. quantity	rack travel mm : 11.90
cm3/1000 strokes : 13.0	Rated speed rpm : 1120
Tolerance	Tolerance 1/min : - 5
cm3/1000 strokes : +- 2.0 Check tolerance	rack travel mm : 4.00
cm3/1000s. : +- 4.5	+ Rated speed rpm : 1165
Spreed	+ Tolerance 1/min : + 15
Tolerance	+
cm3/1000 strokes : 5.5 Check tolerance	rack travel mm : 0.85
cm3/1000s. : 9.0	+ Tolerance mm : +- 0.55 + Rated speed rpm : 1340
. ,,,	nated speed (pin : 1540
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 4.00 Rated speed rpm : 1190 Tolerance 1/min : + 15
GUIDE SLEEVE POSITION	<u> </u>
	+ LOW IDLE
control lever	†
position degree : - 3	T control lever
Rated speed rpm : 800	position degree : 75.0
	tolerance degree : - 4.0
Rack travel in mm : 0.50 Tolerance mm : + 0.20	Setting point w/out bumper spring
governor spring	Rated speed rpm : 425
pre-tension	+ rack travel num : 7.00
click setting x : 4.50	† Tolerance mm : + 0.10
	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	+
Data depart on ACTE	+ CRT mm min. : > 19.50
Rated speed rpm : 1075 Aneroid pressure	Testing:
hPa : 900	+ resemble
Del. quantity	Rated speed rpm : 425
cm3/1000 strokes : 102.0	rack travel mm : 7.50
Tolerance cm3/1000 strokes : +- 1.0	↑ Tolerance mm : ← 0.10
000 5t1 000 5 t1 000	rack travel mm : 2.00

Rated speed rpm Tolerance 1/min	: 555 : + 30
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1075 : 12.90 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 700 : 13.10 : + 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 900 : 12.95 : + 0.10
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 11.30 : + 0.10
PEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel nm Tolerance mm	: 430 : 12.20 : + 0.10
Pressure hPa rack travel mm Tolerance mm	: 500 : 12.55 : + 9.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 900 : 700 : 13.10 : + 0.10 : 98.0
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: + 2.0 : + 4.0

	:		-	
Rated speed rpm	:		5 0 0	
Del. quantity				
cm3/1000 strokes	:		68.0	
Tolerance				
cm3/1000 strokes	:	+-	1.0	
Check tolerance				
cm3/1000s.	:	+	3.0	
STARTING FUEL DELI		ERY		
Rated speed rpm	:		100	
rack travel mm	:		20.25	
Tolerance mm	:	+-	0.75	
Del. quantity				
cm3/1000 strokes	:		84.0	
Tolerance				
cm3/1000 strokes	:	+-	7.5	
Check tolerance				
cm3/1000s.	:	+-	10.0	
LOW IDLE				
Rated speed rpm	:		425	
Rack travel in mm	:		7.50	
Tolerance mm	:	+	0.10	
Del. quantity				
cm3/1000 strokes	:		13.0	
Tolerance				
cm3/1000 strokes	:	+-	2.0	
Check tolerance				
cm3/1000s.	:	+	4.5	
Spreed				
Tolerance			<i>-</i> -	
cm3/1000 strokes	:		5.5	
Check tolerance			0.0	
cm3/1000s.	:		9.0	

Aneroid pressure

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 08,10,97 : ISO 4113

Combination No. : F 002 AUZ 070

Injection pump

Pump designation : PES6A95D32D/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV475...1100A2C948R

6overner no. : F 002 A20 249

Cust. part No. : 3933621

Customer-spec. information Customer : CDC Motor : 6BTA Power KW : 114.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

208.5 bar : + 1.5 Tolerance bar

: 1 680 750 014 Test lines

Outside diameter : 6.0

x inside diameter : 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mi : +- 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50 : **←** 1.50 Tolerance mm

: 1-5-3-6-2-Firing order

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 8.50 Tolerance : **←** 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 12.15

Tolerance mm : + 0.05	Rated speed rpm : 1100
Del. quantity = 101.5	Aneroid pressure hPa : 1200 Del. quantity
Tolerance	cm3/1000 strokes : 101.5 Tolerance
cm3/1000 strokes : + 1.0	cm3/1000 strokes : +- 1.0 Check tolerance
Check tolerance cm3/1000s. : + 3.0	cm3/1000s. : +- 3.0 Spreed
Spreed	Tolerance cm3/1000 strokes : 3.5
Tolerance cm3/1000 strokes : 3.5	Check tolerance cm3/1000s. : 6.0
Check tolerance cm3/1000s. : 6.0	CONTROL LEVER
	control lever position degree : 102.0
Rated speed rpm : 500	tolerance degree : +- 4.0
Rack travel in mm: 5.50 Tolerance mm: : + 0.10 Del. quantity	RATED SPEED rack travel mm : 11.10 Rated speed rpm : 1165
cm3/1000 strokes : 20.0	Tolerance 1/min : +- 5
Tolerance cm3/1000 strokes : + 2.0	rack travel mm : 4.00
Check tolerance cm3/1000s. : + 4.5 spreed	Rated speed rpm : 1245 Tolerance 1/min : +- 5
Tolerance + cm3/1000 strokes : 3.5 +	rack travel mm : 0.85 Tolerance mm : + 0.55
Check tolerance cm3/1000s. : 5.5	Rated speed rpm : 1300
(B) SETTING OF INJECTION PUMP	rack travel mm : 4.00 Rated speed rpm : 1250 Tolerance 1/min : 15
WITH GOVERNOR	
GUIDE SLEEVE POSITION	LOW IDLE
control lever position degree : -3 Rated speed rpm : 800	control lever position degree : 79.0 tolerance degree : +- 4.0
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Control lever difference Grad : 23.0
governor spring	tolerance degree : + 6.0
pre-tension + click setting x : 3.00	Setting point w/out bumper spring
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 500 rack travel mm : 5.00 Tolerance mm : +- 0.10
The some section in the condition	. Cordride him U. IU

### Aneroid pressure hPa	Rated speed rpm	: 100	+ rack travel mm : 13.00
hred speed rpm : 500	CRT mm min.	: > 19.00	+ Tolerance mma : +- 0.20
Treed speed rpm 1000	Testing:		Aneroid pressure
Rated speed rpm : 500 Rated speed rpm : 500 Pel. quantity Cm3/1000 strokes : 118.5 Tolerance Cm3/1000 strokes : 118.5 Tolerance Cm3/1000 strokes : 12.0 Check tolerance Cm3/1000 strokes : 12.0 Check tolerance Cm3/1000 strokes : 4.0 Check tolerance Cm3/1000 strokes : 85.0 Tolerance Cm3/1000 strokes : 4.0 Check tolerance Cm3/1000 strokes : 3.5 Check tolerance Cm3/1000 stro			
Del. quantity Del. quantit	Rated speed rpm	: 500	Rated speed rom : 900
Tolerance cm3/1000 strokes : + 2.0	rack travel mm	: 5.50	Del. quantity
Tolerance cm3/1000 strokes : + 2.0	Tolerance mm	: +- 0.10	+ cm3/1000 strokes · 118 5
### CONTROL treed speed rpm : 1100			
Check tolerance Check tol			
Cm3/1000S. : + 4.0	TORQUE CONTROL		
Aneroid pressure Sou Start Aneroid pressure	Rated speed rpm	: 1100	
Aneroid pressure hPa	ack travel ma	: 12.15	
Aneroid pressure hPa	olerance mm	: ← 0.05	
A			Aneroid pressure
Cm3/1000 strokes : 85.0 Tolerance mm : 13.00 Tolerance mm : 13.35 Tolerance mm : 13.35 Tolerance mm : 13.35 Tolerance mm : 10.20 Tolerance mm : 20.50 Tolerance mm : 20	Nated speed rpm	: 750	+ hPa : -
Cm3/1000 strokes : 85.0 Tolerance mm : 13.00 Tolerance mm : 13.35 Tolerance mm : 13.35 Tolerance mm : 13.35 Tolerance mm : 10.20 Tolerance mm : 20.50 Tolerance mm : 20	ack travel mm	: 13.40	+ Rated speed rpm : 500
Cm3/1000 strokes : 85.0 Tolerance mm : 13.00 Tolerance mm : 13.35 Tolerance mm : 13.35 Tolerance mm : 13.35 Tolerance mm : 10.20 Tolerance mm : 20.50 Tolerance mm : 20	iolerance ma	: - 0.20	
Tolerance Tole			
cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. cm3	Rated speed rpm	: 1000	
cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. cm3	rack travel min	: 13.00	+ cm3/1000 strokes : + 1.0
cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. : + 3.0 cm3/1000s. cm3	Folerance mm	: ← 0.20	+ Check tolerance
STARTING FUEL DELIVERY STARTING FUEL DELIVERY			+ cm3/1000s. : + 3.0
STARTING FUEL DELIVERY STARTING FUEL DELIVERY	Rated speed rpm	: 900	+
STARTING FUEL DELIVERY STARTING FUEL DELIVERY STARTING FUEL DELIVERY Rated speed rpma : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 120.5 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000 strokes : + 15.0 cm3/1000 strokes : + 15.0 Check tolerance cm3/1000 strokes : + 15.0 Check tolerance cm3/1000 strokes cm3/1000 strokes cm3/1000 strokes cm3/1000 strokes : + 0.10 Check tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000 strokes : - 2.0 Check tolerance cm3/1000 strokes : - 3.5 Check tolerance cm3/1000 strokes cm3/1000 strokes cm3	ack travel m	: 13.35	+
STARTING FUEL DELIVERY Rated speed rpma : 100 rack travel mm : 20.50 Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 120.5 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 15.0 Check travel mm : 10.30 Check travel mm : 5.50 Check travel mm : 12.90 Check travel mm : 5.50 Check travel mm : 11.40 Check tolerance cm3/1000 strokes : 20.0 Check tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000 strokes : 3.5	olerance mm	: ← 0.20	
##PENSATOR TEST			STARTING FUEL DELIVERY
##PENSATOR TEST	WEDOIN/ALTTRICE		Detect energy ways
Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 120.5 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 15.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 15.0 Tolerance			+ Nated speed input: 100
### CTTING Interest Commons C	UMPENSATUR TEST		+ rack travel mm : 20.50
### CTTING Interest Commons C			† loterance mm : + 0.50
Tolerance cm3/1000 strokes : \$\iff 10.0\$ check tolerance cm3/1000s. : \$\iff 15.0\$ ited speed rpm : 500 ressure hPa : - 10.30 ressure hPa : - 10.30 ressure hPa : - 10.30 ressure hPa : - 10.10 ressure hPa : - 10.10 ressure hPa : 500 ressure hPa : 500 ressure hPa : 800 ressure hPa : 800 ressure hPa : 800 ressure hPa : 800 ressure hPa : 12.90 ressure hPa : 12.90 ressure hPa : 450 ressure hPa	ETTING		pel. quantity
ted speed rpm : 500 cm3/1000 strokes : \(\to 10.0 \) check tolerance cm3/1000s. : \(\to 15.0 \) check travel mm : 500 ck travel mm : 10.30 ck travel mm : 500 ck travel mm : 500 ck travel mm : 500 ck travel mm : 5.50 ck travel mm : 12.90 ck travel mm : 5.50 cm3/1000 strokes : 20.0 cm3/1000 strokes : 20.0 ck travel mm : 11.40 check tolerance cm3/1000s. : \(\to 4.5 \) Spreed Tolerance cm3/1000 strokes : 3.5 check tolerance cm	ELITINO		
Check tolerance cm3/1000s. : + 15.0 cm3/1000s.	Nakadana at da ame	. 500	
Cm3/1000s. : + 15.0 cm3/1000s. cm3/1000s. : + 15.0 cm3/1000s. cm3/1000			
Solution Solution	ressure hPa	: 7200	· · · · · · · · · · · · · · · · · · ·
Sessure hPa	No. de and and and		+ cm3/1000s. : $+$ 15.0
Colorance mma			†
LOW IDLE LOW IDLE LOW IDLE Rated speed rpm : 500 Rack travel in mm : 5.50 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance Cm3/1000 strokes : 3.5 Check tolerance Cm3/1000 strokes : 3.5 Check tolerance Cm3/1000 strokes : 3.5 Check tolerance Cm3/1000 strokes : 3.5 Check tolerance Cm3/1000 strokes : 3.5 Check tolerance Cm3/1000 strokes : 3.5 Check tolerance Cm3/1000 strokes : 3.5 Check tolerance			†
LOW IDLE Rated speed rpm: : 500 Rack travel in mm: 5.50 Rack travel in mm: 5.50 Rack travel in mm: 5.50 Pessure hPa : 800 Rack travel in mm: 5.50 Tolerance mm: : + 0.10 Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000strokes : 3.5 Check tolerance			†
Rated speed rpm : 500 Rack travel in mm : 5.50	olerance mm	: ← U.7U	
Rated speed rpm : 500 Rack travel in mm : 5.50	EASI IDEMENT		+ LOW IDLE
Rack travel in mm : 5.50 Rack travel in mm : 5.50			I Rated speed rom . 500
Rack travel in mm : 5.50 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	Rated speed rom	: 500	T Nated Speed (pill . 500
Tolerance mm : + 0.10			Rack travel in mm: 550
Del. quantity cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : + 2.0 ck travel mm : 11.40 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 3.5 Check tolerance Cm3/1000 strokes Check tolerance	ressure hPa	: 800	
cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : + 2.0 ck travel mm : 11.40 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000 strokes : 3.5 Check tolerance Ch			1
Tolerance cm3/1000 strokes : + 2.0 ck travel mm : 11.40 clerance mm : + 0.20 cm3/1000s. : + 4.5 spreed Tolerance cm3/1000s. : + 4.5 spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance			
cm3/1000 strokes : + 2.0 cm3/1000 strokes : + 2.0 ck travel mm : 11.40 Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance Cm3/1000 strokes : 3.5 Check tolerance Che	COLUMN HEN		
ck travel mm : 11.40 - Check tolerance cm3/1000s. : + 4.5 spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance	receire hos	- 450	
cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 EL DELIVERY CHARACTERISTICS Cm3/1000 strokes : 3.5 Check tolerance			
Spreed Tolerance cm3/1000 strokes : 3.5 EL DELIVERY CHARACTERISTICS Check tolerance			
Tolerance	OLET GIVE THE	. — 0.20	
EL DELIVERY CHARACTERISTICS + cm3/1000 strokes : 3.5			· · · · · · · · · · · · · · · · · · ·
EL DELIVERY CHARACTERISTICS + Check tolerance			
	UEL DEL TUERY ALLA	DACTEDICTICS	
† cm3/1000s. : 5.5	JEL DELIVERY CHA	INACTERT21102	
			+ cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.10.97 Test oil : ISO 4113

Combination No. : F 002 A0Z 079

Injection pump

Pump designation : PES4A95D12ORS2941 EP type number : F 002 A10 024

Governor

Governer design. : RQV475...1250AB1329R

Governer no. : F 002 A30 004

Cust. part No. : 3933691

Customer-spec. information Customer : CDC : 4BNA Motor Power KW : 59.6

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +--

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar Tolerance bar : \leftarrow 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length man :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05 Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm: + 1.50

Firing order : 1-3-4-2

: 0-90-180-270 : +- 0.50 Phasing

Tolerance Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 8.50 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 10.00 Tolerance mm : \leftarrow 0.05

Del. quantity cm3/1000 strokes : 87.0

Tolerance cm3/1000 strokes	: ← 1.0	guide sleeve - travel mm : 11.50 - Tolerance mm : +- 0.50
Check tolerance cm3/1000s.	: +- 3.0	
Spreed		FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes	: 3.5	Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity
Check tolerance cm3/1000s.	: 6.0	cm3/1000 strokes : 87.0 Tolerance cm3/1000 strokes : + 1.0
Rated speed rpm	: 475	Check tolerance cm3/1000s. : + 3.0 Spreed
Rack travel in man	-	Tolerance - cm3/1000 strokes : 3.5
Del. quantity cm3/1000 strokes		- Check tolerance - cm3/1000s. : 6.0
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.		CONTROL LEVER
Spreed Tolerance		- control lever - position degree : 100.0
cm3/1000 strokes Check tolerance		tolerance degree : + 6.0
Cm3/1000S. (B) SETTING OF INJ WITH GOVERNOR	: 5.5 -	RATED SPEED rack travel mm : 9.00 Rated speed rpm : 1300 Tolerance 1/min : + 15 rack travel mm : 4.00
GUIDE SLEEVE TRAVE	L -	Rated speed rpm : 1390 Tolerance 1/min : +- 5
Rated speed rpm guide sleeve travel mm Tolerance mm	: 1310 : 8.60 : + 0.15 : 475	- rack travel nm : 0.50 - Tolerance mm : +- 0.50 - Rated speed rpm : 1475
guide sleeve travel mm Tolerance mm	: 1.90 : ← 0.20	LOW IDLE
Rated speed rpm guide sleeve travel mm Tolerance mm	: 930 : 5.25 : ← 0.25	control lever position degree : 70.0 tolerance degree : +- 6.0
Rated speed rpm guide sleeve travel mm	: 630 : 3.30	- Control lever difference - Grad : 30.0 - tolerance degree : +- 6.0
Tolerance mm	: + 0.25	- Setting point w/out bumper spring
Rated speed rpm	: 1630	- Rated speed rpm : 400

CRT mm min. : > 7.00

Testing:

Rated speed rpm : 475
rack travel mm : 5.35
Tolerance mm : + 0.10

Rated speed rpm : 550

TORQUE CONTROL

Rated speed rpm : 1250 rack travel mm : 10.00 Tolerance mm : + 0.05

Start interlock

Rated speed rpm :> 100 Rated speed rpm :< 385

Check

speed 1/min :> 80 Check speed 1/min : < 395

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50

Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance

cm3/1000s. : \leftarrow 15.0

LOW IDLE

Rated speed rpm : 475

Rack travel in mm: 5.35
Tolerance mm: + 0.10

Del. quantity

cm3/1000 strokes : 15.0

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : + 4.5

Spreed

Tolerance

cm3/1000 strokes : 3.5 Check tolerance

cm3/1000s. : 5.5

End of test specification sheet

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 03.10.97 : ISO 4113

Combination No. : 9 407 083 279

Injection pump

Pump designation : PES6A80D32ORS1271

EP type number : 9 400 083 058

Governor

Governer design. : RSV350...1400A2c2179

Governer no. : 9 420 083 281

Cust. part No. :

Customer-spec. information Customer : M:M : D229-6 Motor Power KW : 100.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. "C 40 Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 003

Outside diameter : 6.0 x inside diameter : 2.0 x length mmm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : ← 1.0

Prestroke mm : 2.25 : **←** 0.05 Tolerance mm

Check

tolerance man : + 0.10

Rack travel in mm: 10.50 Tolerance mam : +- 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance $^{\circ}NW$: \leftarrow 0.75

Beginning of delivery differende

and maximum rack

Tolerance mm : + 1 50 Difference * CS : 4.50

BASIC SETTING

Rated speed rpm : 1400

Rack travel in mm: 10.25 Tolerance mm: $\leftarrow 0.05$

Del. quantity

cm3/1000 strokes : 60.0

	+ Del. quantity
Tolerance	+ cm3/1000 strokes : 60.0
cm3/1000 strokes : +- 0.5	+ Tolerance
Check tolerance	+ cm3/1000 strokes : + 0.5 + Check tolerance
cm3/1000s. : +- 2.0	+ cm3/1000s. : +- 2.0
	Spreed
Spreed	Tolerance
Tolerance	+ cm3/1000 strokes : 2.5
cm3/1000 strokes : 2.5	theck tolerance cm3/1000s. : 4.0
may rood defored	+ cm3/1000s. : 4.0
Check tolerance	+
cm3/1000s. : 4.0	
	CONTROL LEVER
•	- control lever
Rated speed rpm : 400	+ position degree : 97.0
Onel Angual Su ca	tolerance degree : + 4.0
Rack travel in mm : 7.90 Tolerance mm : +- 0.10	T PATEN SPEEN
Del. quantity	+ RATED SPEED + rack travel mm : 9.20
cm3/1000 strokes : 17.5	+ Rated speed rpm : 1435
Tolerance	Tolerance 1/min : + 5
cm3/1000 strokes : +- 1.5 Check tolerance	t most travel ma
cn3/1000s. : +- 3.5	+ rack travel mm : 4.00 + Rated speed rpm : 1460
Spreed	+ Tolerance 1/min : +- 10
Tolerance	+
cm3/1000 strokes : 4.0	+ rack travel mm : 0.85
Check tolerance cm3/1000s. : 6.0	+ Tolerance mm : + 0.55 + Rated speed rpm : 1650
	raced speed rpm : 1000
	+ rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1505
WITH GOVERNOR	Tolerance 1/min : + 15
	Ī
	+
GUIDE SLEEVE POSITION	101 7015
	LOW IDLE
control lever	+
position degree : - 3	control lever
Rated speed rpm : 800	position degree : 66.0
Rack travel in mm : 0.65	tolerance degree : +- 4.0
Tolerance mm : + 0.35	Setting point w/out bumper spring
	+
governor spring	Rated speed rpm : 400
pre-tension click setting x : 4.00	+ rack travel mm : 7.40 + Tolerance mm : + 0.10
Tick Secting A . 4.00	Total dilice lists . TO U. IU
	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	+
Rated speed rpm : 1400	+ CRT mm min. : > 19.00
Aneroid pressure	† Testing:
hPa : -	+
	+ Rated speed rpm : 400

rack travel am	:	7.90	
Tolerance mm	: +-	0.10	
rack travel me		2 00	

rack travel mm : 2.00
Rated speed rpm : 660
Tolerance 1/min : + 30

TORQUE CONTROL		
Rated speed rpm	:	1400
rack travel mm	:	10.25
Tolerance mm	:	← 0.05

Rated speed rpm : 500 rack travel mm : 10.75 Tolerance mm : + 0.05

Rated speed rpm : 800 rack travel mm : 10.55 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure		
hPa	•	_
Rated speed rpm	•	500
Del. quantity		

cm3/1000 strokes : 50.5

Tolerance

cm3/1000 strokes : + 1.5

Check tolerance

cm3/1000s. : + 3.0

Aneroid pressure

hPa : Rated speed rpm : 800
rack travel mm : 10.55
Tolerance mm : + 0.10
Del. quantity

cm3/1000 strokes : 55.0 Tolerance

cm3/1000 strokes : + 1.5 Check tolerance

cm3/1000s. : + 3.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : +- 1.00

LOW IDLE

Rated speed rpm	:		400
	-	+-	7.90 0.10
Del. quantity cm3/1000 strokes Tolerance	:		17.5
cm3/1000 strokes Check tolerance	, ,	+	1.5
cm3/1000s. Spreed Tolerance	:	+	3.5
cm3/1000 strokes Check tolerance	:		4.0
cm3/1000s.	:		6.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 10.10.97 Test oil : ISO 4113

Combination No. : F 000 409 004

Injection pump

Pump designation : PES6P120A720RS3256

: -2

EP type number : 9 400 087 080

Governor

Governer design. : RQV350...1300PA1311

Governer no. : F 000 420 106

Cust. part No. : 0270748502

Customer-spec. information

Customer : M88

Motor : OM 366 LA Power KW : 139.8

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0

Test nozzle holde

assembly : 1 688 901 019

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 075

Outside diameter : 8.0

+ s

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

tolerance mm

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.05
Toterance mm : + 0.05
Check

Rack travel in mm : 20.50
Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

. 4

: + 0.10

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 11.10
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 148.5

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

iolerance m3/1000 strokes	: 5.0	control lever	A
eck tolerance 3/1000s.	: 9.0	+ position degree : + Rated speed rpm :	136
		Rack travel in mm : Tolerance mm :	
ated speed rpm	: 350	+ FULL LOAD DELIVERY	AT FULL
Rack travel in mo	·: 7.50	+	
olerance mm el. quantity	: + 0.10	Rated speed rpm : Aneroid pressure	1300
m3/1000 strokes olerance	: 17.0		900
m3/1000 strokes heck tolerance		+ cm3/1000 strokes :	148
m3/1000s.		Tolerance cm3/1000 strokes :	+ 1.
preed olerance			+- 4.
m3/1000 strokes heck tolerance		Spreed	
m3/1000s.		Tolerance cm3/1000 strokes :	5.
		+ Check tolerance + cm3/1000s. :	9.
UIDE SLEEVE TRAV	EL	CONTROL LEVER	
No. 4 m . 1	4400	+ control lever	
ated speed rpm uide sleeve		<pre>position degree : tolerance degree :</pre>	
ravel non olerance nne	: 6.45	†	
oterance mm	: + 0.25	+ control lever	447
ated speed rpm uide sleeve	: 1350	position degree : tolerance degree :	
ravel ma	: 8.50	RATED SPEED	
olerance ma	: + 0.10	rack travel mm :	10.2
		+ Rated speed rpm :	1355
ated speed rpm uide sleeve		Tolerance 1/min :	+-
ravet mm	; 1.25	+ rack travel mm :	4.0
olerance mm	: + 0.25	Rated speed rpm : Tolerance 1/min :	1460 +- 1
ated speed rpm uide sleeve		rack travel mm :	0.5
ravel mm	: 4.15		+ 0.5
olerance mm	: +- 0.25	+ Rated speed rpm :	1570
ated speed rpm uide sleeve	: 1460	‡	
ravel mm	: 9.55	+	·
olerance mm	: + 0.25	LOW IDLE	
JIDE SLEEVE POSI	TION	control lever	
		position degree :	80.0
		+ tolerance degree :	+ 4.0

control lever position degree tolerance degree	: 23.0 : ← 4.0
Setting point w/o	out bumper spring
Rated speed rpm	: 100
CRT mm min.	: > 10.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 7.50 : + 0.10
Rated speed rpm	: 375
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm Rated speed rpm rack travel mm Tolerance mm	: 11.10 : + 0.05 : 800
ANEROID/ALTITUDE COMPENSATOR TEST	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	
Rated speed rpm Pressure hPa	: 500
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 450 : 1.75 : + 0.15
Pressure hPa rack travel mm Tolerance mm	: 200 : 0.70 : + 0.10
Start interlock	

100

Rated speed rpm	: < 270	
Check speed 1/min Check	: > 80	
speed 1/min	: < 290	
FUEL DELIVERY CHA	ARACTERISTICS	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes	: 900 : 800 : 124.0	
Tolerance cm3/1000 strokes	: + 2.0	
Check tolerance cm3/1000s.	: +- 5.0	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance	: - : 500 : 41.0	
cm3/1000 strokes Check tolerance	: + 1.0	
cm3/1000s. Spreed	: ← 4.0	
Tolerance cm3/1000 strokes	: 5.0	
Check tolerance cm3/1000s.	: 9.0	
STARTING FUEL DELIVERY		
Rated speed rpm Del. quantity	: 100	
cm3/1000 strokes Tolerance		
cm3/1000 strokes Check tolerance	: - 10.0	
cm3/1000s.	: +- 14.0	
LOW IDLE	750	
Rated speed rpm		
Rack travel in mm Tolerance mm	7.50 : +- 0.10	
Del. quantity cm3/1000 strokes	: 17.0	

Rated speed rpm :>

Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 07,10,97

Test oil : ISO 4113

Combination No. : F 002 AUZ 050

Injection pump

Pump designation : PES6A95D320/3RS2916

EP type number : F 002 A10 010

Governor.

Governer design. : RSV425...1050A0c930R

Governer no. : F 002 A20 236

Cust. part No. : 328 3917

Customer-spec, information

Motor

Customer : CUMMINS

: 6BT

Power KW

: 100.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

tempu. ℃C

40

Tolerance °C

· + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar :

Tolerance bar $: \leftarrow 0.1$

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

: 208.5

bar Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

H24

x inside diameter: 2.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : +- 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

Firing order : 1-5-3-6-2-: 4

Phasing

: 0-60-120-180-240

: -300

Tolerance

: + 0.50

Check

tolerance *NW

: + 0.75

Start of delivery blocking

*NW after s.o.d. : 7.00

Tolerance

: + 0.10

Check

tolerance *NW : + 0.29

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 11.25

Tolerance mm : \leftarrow 0.05

		+ Aneroid p
Del. quantity cm3/1000 strokes	: 98.2	hPa Del. quan
		- cm3/1000
Tolerance		+ Tolerance
cm3/1000 strokes	: ← 1.0	+ cm3/1000
Check tolerance		- Check tole
cm3/1000s.	: - 3.0	+ cm3/1000s + Spreed
Jacob 10000 ;	3.0	Tolerance
Spreed		- cm3/1000
		+ Check tole
Tolerance		+ cm3/1000s
cm3/1000 strokes	4.0	†
Check tolerance		· İ
cn3/1000s.	: 6.0	CONTROL LI
		+
		+ control le
S. Annal annual Laboratoria		+ position
Rated speed rpm	: 425	+ tolerance
Rack travel in man	• 5.05	FATED SPE
	: + 0.10	rack trave
Del. quantity		Rated spec
cm3/1000 strokes	: 18.5	Tolerance
Tolerance		+
cm3/1000 strokes	: +- 2.0	+ rack trave
Check tolerance cm3/1000s.	: + 4.5	+ Rated spec
Spreed	4.3	Tolerance
Tolerance		T rack trave
cm3/1000 strokes	: 5.0	Tolerance
Check tolerance		Rated spec
cm3/1000s.	8.0	+
		+ rack trave
(B) SETTING OF INJE	ECTION DIMP	+ Rated spec
WITH GOVERNOR	10120/4 / OHI	Tiderance
11. 00 Ellion		1
		+
0.000	P. dea 1	+
GUIDE SLEEVE POSIT	LON	+ LOW IDLE
		I
control lever		I control le
position degree	: FREE	+ position of
Rated speed rpm	: 800	tolerance
0. 1. 4	0.50	+
Rack travel in man	. 0.50 . + 0.20	+ Control le
Tolerance mm	. + 0.20	+ Grad + tolerance
governor spring		T cocer ance
pre-tension		Setting po
click setting x	3.00	+
		+ Rated spec
DULLOAD OF THE	AT FILL LOAD CTOD	+ rack trave
FULL LOAD DELIVERY	MI FULL LUMB STOP	† Tolerance
	4.000	Τ

Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 900 : 98.2 : ← 1.0 : ← 3.0 : 4.0 : 6.0
CONTROL LEVER	
control lever position degree tolerance degree	: 95.0 : ← 4.0
RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 10.25 : 1090 : + 5
rack travel mma Rated speed rpm Tolerance 1/min	: 4.50 : 1145 : + 5
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 1275
rack travel mm Rated speed rpm Tolerance 1/min	: 4.50 : 1145 : ← 15

control lever
position degree : 74.0
tolerance degree : +- 4.0
Control lever difference

Control lever difference
Grad: 21.0
tolerance degree: + 6.0

Setting point w/out bumper spring

Rated speed rpm : 425 rack travel mm : 4.55 Tolerance mm : + 0.10

Rated speed rpm : 100

Rated speed rpm : 1050

CRT man min.	· > 19 n n	+ Tolerance + cm3/1000 strokes : +- 2.0
	. > 17.00	+ Check tolerance
Testing:		+ cm3/1000s. : $+$ 4.0
Rated speed rpm	: 425	
rack travel mm	5.05	+ Aneroid pressure
Tolerance mm	: ← 0.10	+ hPa : -
	2.00	Rated speed rpm : 500
rack travel mm Rated speed rpm	: 2.00	Del. quantity
Tolerance 1/min		+ cm3/1000 strokes : 79.5 + Tolerance
TOTAL TANKE	· — 30	+ cm3/1000 strokes : + 1.0
		+ Check tolerance
TORQUE CONTROL		- cm3/1000s. : + 3.0
Rated speed rpm	• 1050	
rack travel mm	: 11.25	I
olerance ma	: + 0.05	
TOCCI CITICO MINI	. , 0.05	STARTING FUEL DELIVERY
Rated speed rom	: 800	OLYMITING LOCK DESTABLE
rack travel ma		Rated speed rpm : 100
Tolerance m	: +- 0.20	+ rack travel mm : 20.50
		+ Tolerance mm : + 0.50
		+ Del. quantity
ANEROID/ALTITUDE		+ cm3/1000 strokes : 121.5
COMPENSATOR TEST		+ Tolerance
		+ cm3/1000 strokes : + 10.0
		+ Check tolerance
SETTING		+ cm3/1000s. : + 15.0
 	. 500	†
Rated speed rpm Pressure hPa		†
ressure fire	: 900	Ť
Rated speed rpm	: 500	LOW IDLE
Pressure hPa		I COM IDEE
rack travel mm	9.90	Rated speed rpm : 425
Tolerance mm	: + 0.20	Hacea opeca i piii . 425
	5.25	Rack travel in mm: 5.05
MEASUREMENT		Tolerance mm : + 0.10
		+ Del. quantity
Rated speed rpm	: 500	+ cm3/1000 strokes : 18.5
- An	- 	+ Tolerance
Pressure hPa	: 650	+ cm3/1000 strokes : + 2.0
ack travel inn		+ Check tolerance
olerance mm		+ cm3/1000s. : + 4.5
•		Spreed
Pressure hPa	: 400	+ Tolerance
ack travel mm	: 10.60	+ cm3/1000 strokes : 6.0
Folerance mm	: + 0.20	+ Check tolerance
		- cm3/1000s. : 8.0
		+
UEL DELIVERY CHA	RACTERISTICS	‡
		
Ineroid pressure	000	+ End of test specification sheet
nPa	: 900	†
Rated speed rpm	: 800	†
el. quantity m3/1000 strokes	40/ 0	†

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15.10.97 : ISO 4113

Combination No. : F 002 A0Z 070

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governer design. : RSV500...1100A2C948R

Soverner no. : F 002 A20 249

Cust. part No. : 3933621

Customer-spec. information Customer : CDC Motor : 6BTA : 114.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test cil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

208.5 bar : + 1.5 Tolerance bar

Test lines : 1 680 750 014

Outside diameter: 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm 2.85 : + 0.05 Tolerance mm Check

: + 0.10 tolerance mm

Rack travel in mm: 10.50 : +- 1.50 Tolerance mm

: 1-5-3-6-2-Firing order

: 0-60-120-180-240 Phasing

: -300

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 8.50 : + 0.50Tolerance

Check

tolerance *NW : \leftarrow 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 12.15

H27

Tolerance mm : + 0.05 +	Rated speed rpm : 1100
	Aneroid pressure
Del. quantity	hPa : 1200
cm3/1000 strokes : 101.5	Del. quantity
	cm3/1000 strokes : 101.5
Tolerance	Tolerance
cm3/1000 strokes : + 1.0	cm3/1000 strokes : + 1.0
+	Check tolerance
Check tolerance	cm3/1000s. : + 3.0
cm3/1000s. ; $+3.0$	- Spreed
	Tolerance
Spreed	cm3/1000 strokes : 3.5
Talamana	Check tolerance
Tolerance cm3/1000 strokes : 3.5	cm3/1000s. : 6.0
cm3/1000 strokes : 3.5	•
Check tolerance	·
cn3/1000s. : 6.0	CONTROL LEVED
CHS/10005. : 6.0	CONTROL LEVER
	control lever
Ī	position degree : 102.0
Rated speed rpm : 500	tolerance degree : + 4.0
. 300	
Rack travel in mm: 5.50	RATED SPEED
Tolerance mm : + 0.10	rack travel mm : 11.10
Del. quantity	Rated speed rpm : 1165
cm3/1000 strokes : 20.0	Tolerance 1/min : + 5
Tolerance	
cm3/1000 strokes : + 2.0	rack travel mm : 4.00
Check tolerance	Rated speed rpm : 1245
cm3/1000s. : + 4.5	Tolerance 1/min : + 5
Spreed	
Tolerance	rack travel mm : 0.85
cm3/1000 strokes : 3.5	Tolerance mm : +- 0.55
Check tolerance	Rated speed rpm : 1300
cm3/1000s. : 5.5	
+	rack travel mm : 4.00
+	Rated speed rpm : 1250
(B) SETTING OF INJECTION PUMP	Tolerance 1/min : + 15
WITH GOVERNOR +	
†	
†	
CUTAE CLEDIE DOCTTON	LOUTING
GUIDE SLEEVE POSITION	LOW IDLE
†	
control lever	control lever
position degree : - 3	
Rated speed rpm : 800	position degree : 79.0 tolerance degree : +- 4.0
T	cotto ante degree . T- 4.U
Rack travel in mm: 0.50	Control lever difference
Tolerance mm : + 0.20	Grad : 23.0
T- 0.50	tolerance degree : + 6.0
governor spring	
pre-tension +	Setting point w/out bumper spring
click setting x : 3.00	The state of the s
1	Rated speed rpm : 500
	rack travel mm : 5.00
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : ← 0.10

### Aneroid pressure head in 1200 Rated speed rpm : 500 Bet ravet mm : 5.50 Bet ravet mm : 5.50 Bet ravet mm : 5.50 Bet ravet mm : 5.50 Bet ravet mm : 5.50 Bet ravet mm : 5.50 Bet ravet mm : 5.50 Bet ravet mm : 6.10 Bet ravet mm : 6.10 Bet ravet mm : 6.10 Bet ravet mm : 6.10 Bet ravet mm : 6.20 Bet ravet	ated speed rpm	: 100	+ rack travel mm : 13.0 + Tolerance mm : + 0.2
### 1200 ###	RT mm min.	: > 19.00	1. U.2
### speed rpm : 500 ack travel mm : 5.50 bel. quantity cm3/1000 strokes : 118.5 Tolerance mm : + 0.10 cm3/1000 strokes : 118.5 Tolerance cm3/1000 strokes : + 2.0 cm3/1000 strokes : + 4.0 cm3/1000 strokes : + 4.0 cm3/1000 strokes : + 4.0 cm3/1000 strokes : + 4.0 cm3/1000 strokes : + 4.0 cm3/1000 strokes : + 4.0 cm3/1000 strokes : + 4.0 cm3/1000 strokes : - 4.5 cm3/1000 strokes : - 4.5 cm3/1000 strokes : - 4.5 cm3/1000 strokes : - 4.5 cm3/1000 strokes : - 4.5 cm3/1000 strokes : - 3.5 cm3/1000	Testing:		
Del. quantity Cm3/1000 strokes : 118.5			
Del. quantity Del. quantit	Rated speed rpm	: 500	
cm3/1000 strokes : 118.5	rack travel mm	: 5.50	+ Del. quantity
Cm3/1000 strokes : ← 2.0	Tolerance mm	: ← 0.10	+ cm3/1000 strokes : 118.
Cm3/1000 strokes : ← 2.0			
Check tolerance cm3/1000s. Check toleranc			
### ack travel nam	TORQUE CONTROL		
Aneroid pressure 12.15 Aneroid pressure 12.15 Aneroid pressure 13.40 Aneroid pressure 14.40 Aneroid pressure		: 1100	
Aneroid pressure Aneroid pre			1
Aneroid pressure hPa : 750 ack travet mm : 73.40 plerance mm : + 0.20 ack travet mm : 13.40 plerance mm : + 0.20 ack travet mm : 1000 ack travet mm : 13.00 ack travet mm : 13.00 ack travet mm : 10.20 ack travet mm : + 0.20 ack travet mm : + 0.20 ack travet mm : + 0.20 ack travet mm : 13.35 blerance mm : + 0.20 STARTING FUEL DELIVERY WEROID/ALTITUDE MPENSATOR TEST Tolerance mm : + 0.50 ack travet mm : 20.50 ack travet mm : 500 ack travet mm : 500 ack travet mm : 10.80 ack travet mm : 10.80 ack travet mm : 10.80 ack travet mm : 12.90 ack travet mm : 12.90 ack travet mm : 12.90 ack travet mm : 12.90 ack travet mm : 11.40 ack trave			
Ack travel mm	- SUI CHIEGO MAN		I Aparoid processes
cm3/1000 strokes : 85.0 Tolerance cm3/1000 strokes : 85.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000 strokes : - 3.5 Check	Pated speed non	. 750	
cm3/1000 strokes : 85.0 Tolerance cm3/1000 strokes : 85.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000 strokes : - 3.5 Check	nactu speeu (1918)	. 17.40	
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Tolerance Tole	ioterance im	· +- U.ZU	
Stack travel mm	Dakad 4	4000	
Check tolerance mm			
cm3/1000s. : + 3.0			
STARTING FUEL DELIVERY STARTING FUEL DELIVERY	Tolerance mm	: +- 0.20	
STARTING FUEL DELIVERY STARTING FUEL DELIVERY			+ cm3/1000s. : $+$ 3.
STARTING FUEL DELIVERY STARTING FUEL DELIVERY	Rated speed rpm	: 900	+
STARTING FUEL DELIVERY STARTING FUEL DELIVERY	rack travel mm	: 13.35	+
STARTING FUEL DELIVERY STARTING FUEL DELIVERY	foterance and	: +- 0.20	
Tack travel mm 20.50		-	STARTING FUEL DELIVERY
Tack travel mm 20.50	ANEDOTO /ALTTRICE		The board are all are
Tolerance mm : + 0.50 Del. quantity cm3/1000 strokes : 120.5 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 15.0 Tolerance cm3/1000s. : + 15.0 Tolerance cm3/1000s. : + 15.0 Tolerance cm3/1000s. : + 15.0 Tolerance cm3/1000s. : + 15.0 Tolerance cm3/1000s. : + 15.0 Tolerance cm3/1000s. : + 15.0 Tolerance mm : 500 Rack travel in mm : 5.50 Tolerance mm : + 0.10 Tolerance mm : + 0.10 Tolerance mm : + 0.10 Tolerance mm : + 0.10 Tolerance mm : + 0.10 Tolerance mm : + 0.10 Tolerance mm : + 0.10 Tolerance mm : + 0.10 Tolerance cm3/1000 strokes : 20.0 Tolerance cm3/1000 strokes : + 2.0 Tolerance cm3/1000 strokes : + 2.0 Tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000s. : + 4.5 Tolerance cm3/1000s. : + 3.5 Tolerance cm3/1000s. : + 3.5 Tolerance cm3/1000s. : + 3.5 Tolerance cm3/1000s. : + 3.5 Tolerance cm3/1000s. : + 3.5 Tolerance cm3/1000s. : + 3.5			+ kated speed rpm : 100
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Cm3/1000 strokes : 120.5 Tolerance Cm3/1000 strokes : 120.5 Tolerance Cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 15.0 Check tolerance Cm3/1000 strokes Check tolerance Cm3/1000 strokes : 20.0 Check tolerance Cm3/1000s. : + 2.0 Check tolerance Cm3/1000s. : + 4.5 Check tolerance Cm3/1000s. : + 4.5 Check tolerance Cm3/1000s. : - 4.5 Check tolerance Cm3/1000s. Check tolerance Cm3/1000s. Check tolerance Cm3/1000s. Check tolerance Cm3/1000s. Check tolerance Cm3/1000s. Check tolerance Cm3/1000s. Check tolerance Cm3/1000s. Check tolerance Cm3/1000s. Check tolerance Cm3/1000s. Check tolerance Cm3/1000s. Check tolerance Cm3/1000s. Check tolerance Cm3/1000s. Check tolerance Cm3/1000s. Check			† Tolerance mm : + 0.5
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cm3/1000s. : +- 15.0 cm3/1000s. cm3/1000	Pressure hPa		
Solution Solution			
Tessure hPa	Rated speed rom	: 500	+
10.80 10.8	Pressure hPa	: -	1
Color Colo		: 10.80	1
LOW IDLE Rated speed rpm : 500 ressure hPa : 800 ressure hPa : 800 ressure mm : 12.90 ressure mm : 12.90 ressure hPa : 450 ressure hPa : 5.50 ressure hPa : 5.50 ressure hPa : 450 ressure hPa : 450 ressure hPa : 450 ressure hPa : 450 ressure hPa : 450 ressure hPa : 5.50			
Rated speed rpm : 500 ressure hPa : 800 rick travel mm : 12.90 ressure hPa : 450 re			I ION IN F
Rated speed rpm : 500 ressure hPa : 800 rick travel mm : 12.90 ressure hPa : 450 re	MEASUDEMENT		I LOW TOLE
Rack travel in mm : 5.50	E-1007CHEITH		I pated aread are
Rack travel in mm : 5.50 Tolerance mm : + 0.10 Del. quantity Delevance mm : + 0.20 Tolerance	ated cased are	• 500	T Kated speed rpm : 500
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ck travel mm : 11.40 + Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance			
ck travel mm : 11.40 + Check tolerance cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 EL DELIVERY CHARACTERISTICS + Check tolerance	ressure hPa	: 450	+ cm3/1000 strokes : +- 2.
cm3/1000s. : + 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 EL DELIVERY CHARACTERISTICS Tolerance Check tolerance	rack travel mm		
Spreed Tolerance cm3/1000 strokes : 3.5 EL DELIVERY CHARACTERISTICS Check tolerance			
Tolerance cm3/1000 strokes : 3.5 EL DELIVERY CHARACTERISTICS Check tolerance			
EL DELIVERY CHARACTERISTICS + Check tolerance 3.5			
EL DELIVERY CHARACTERISTICS + Check tolerance			
	זורו ארו זערטע פוני	DACTEDICTICS	
+ cm3/1000s. : 5.5	IEL DELIVERY CHA	KACIEKTO11CO	
			+ cm3/1000s. : 5.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 12.09.97 : ISO 4113

Combination No. : F 002 A07 061

Injection pump

Pump designation : PES4A95D320/3RS2927

EP type number : F 002 A10 017

Governor

Governer design. : RSV475...1100A2C941R

Governer no.

: F 002 A20 242

Cust. part No. : 3930143

Customer-spec. information

Customer : CDC

Motor

: 4BNA3.9

Power KW

: 54.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 2 417 413 093

Inlet press. bar :

Tolerance bar : + 0.1

2.0

Test nozzle holde

: 1 688 901 101

assembly

Opening pressure

208.5

Tolerance bar

: **←** 1.5

Test Lines

: 1 680 750 014

Outside diameter : 6.0

REMARKS

x length mm :

x inside diameter :

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0

Tolerance bar : + 1.0

2.0

600

Prestroke IMM : 2.35
Tolerance mm : + 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 10.50

Tolerance mm : \leftarrow 1.50

Firing order : 1-3-4-2

Phasina

: 0-90-180-270

Tolerance

: **←** 0.50

Check

tolerance $^{\circ}NW$: + 0.75

Start of delivery blocking

*NW after s.o.d. : 7.75

tolerance "NW

Tolerance

: +- 0.50

Check

: +- U.75

Barrel no.

: 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 9.75

Tolerance mm : +- 0.05

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har

		rack travel mm : 4.00 Rated speed rpm : 1250
Rated speed rpm	: 475	Tolerance 1/min : + 15
· -	: 4.60 : + 0.10	
Del. quantity cm3/1000 strokes Tolerance	1	LOW IDLE
cm3/1000 strokes Check tolerance cm3/1000s.	: + 2.0 : + 4.5	<pre>control lever position degree : 70.0 tolerance degree : + 4.0</pre>
Spreed Tolerance cm3/1000 strokes	: 3.5	Control lever difference
Check tolerance cm3/1000s.	: 5.5	tolerance degree : +- 6.0
(D) SETTING OF THE	FOTTONI NIME	Setting point w/out bumper spring
(B) SETTING OF INJ WITH GOVERNOR	ECTICAL POPP	Rated speed rpm: : 475 rack travel mm: : 4.10 Tolerance mm: : +- 0.10
GUIDE SLEEVE POSIT	ION	Rated speed rpm : 100
	‡	CRT mm min. : > 19.00
control lever position degree	: -3	Testing:
	: 800 +	Rated speed rpm : 475 rack travel mm : 4.60
Rack travel in mm Tolerance mm	: 0.50 : + 0.20	Tolerance mm : + 0.10
governor spring pre-tension click setting x	: 3.50	TORQUE CONTROL Rated speed rpm : 1100 rack travel mm : 9.75 Tolerance mm : + 0.05
CONTROL LEVER		Rated speed rpm : 600 rack travel mm : 9.75 Tolerance mm : +- 0.20
control lever position degree tolerance degree		
Rated speed rpm	: 8.70 : 1175 _	FUEL DELIVERY CHARACTERISTICS
	: +- 5	Aneroid pressure hPa : -
rack travel mm : Rated speed rpm : Tolerance 1/min :	: 4.00 : 1240 : + 5	Rated speed rpm : 600 Del. quantity cm3/1000 strokes : 82.0
rack travel mm :	: 0.85 : + 0.55	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
	1350	cm3/1000s. : +- 3.0 Spreed

Tolerance

cm3/1000 strokes : 3.5
Check tolerance
cm3/1000s. : 6.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : \leftarrow 0.50 Del. quantity cm3/1000 strokes : 120.0 Tolerance cm3/1000 strokes : \leftarrow 10.0 Check tolerance cm3/1000s. : \leftarrow 15.0

LOW IDLE

Rated speed rpm : 475 Rack travel in mm : 4.60 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 13.5 Tolerance cm3/1000 strokes : \leftarrow 2.0 Check tolerance cm3/1000s. : +- 4.5 Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 15.10.97 : ISO 4113

Combination No. : F 002 A0Z 064

Injection pump

Pump designation : PES4A95D320/3RS2927

EP type number : F 002 A10 017

Governor

Governer design. : RSV475...1000A2C944R

Governer no. : F 002 A20 245

Cust. part No. : 3933090

Customer-spec. information

Customer : CDC

Motor

: 4BNA3.9

Power KW

: 40.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance *C

: + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar :

2.0

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

208.5

Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter: 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : +- 1.0

: 2.85

Prestroke mm Tolerance mm

: ← 0.05

Check

tolerance mm

: + 0.10

Rack travel in mm: 10.50 Tolerance mn: \leftarrow 1.50

Firing order

: 1-3-4-2

Phasing

: 0-90-130-270 : +- 0.50

Tolerance

Check tolerance *NW

: **←** 0.75

Start of delivery blocking

"NW after s.o.d. : 6.50

Tolerance

: +- 0.50

Check tolerance *NW

: +- 0.75

Barrel no.

: 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm:

8.05

Tolerance mm

: +- 0.05

J06

Del. quantity	Aneroid pressure
cm3/1000 strokes : 70.5	hPa :
Tolerance	Del. quantity cm3/1000 strokes : 70.5
cm3/1000 strokes : + 1.0	· Tolerance
5.10 Sec. 5.10 S	cm3/1000 strokes : +- 1.0
Check tolerance	Check tolerance
cm3/1000s. : +- 3.0	cm3/1000s, ; +- 3.0
	Spreed
Spreed	Tolerance
To Lamon as	cm3/1000 strokes : 3.5
Tolerance cm3/1000 strokes : 3.5	Check tolerance
chis/ roou strokes: 3.3	cm3/1000s. : 6.0
Check tolerance	•
cm3/1000s. : 6.0	
+	CONTROL LEVER
+	•
	control lever
Rated speed rpm : 475	position degree : 87.0
Dools trough for my state / 75	tolerance degree : + 4.0
Rack travel in man: 4.75 Tolerance man: + 0.10	RATED SPEED
Del. quantity	rack travel mm : 7.00
cm3/1000 strokes : 13.5	Rated speed row : 1070
Tolerance	Tolerance 1/min : + 5
cm3/1000 strokes : + 2.0	
Check tolerance	rack travel mm : 4.00
cm3/1000s. : + 4.5	Rated speed rpm : 1090
Spreed	Tolerance 1/min : + 5
Tolerance	
cm3/1000 strokes : 3.5 Check tolerance	rack travel mm : 0.85 Tolerance mm : +- 0.55
cm3/1000s. : 5.5	Tolerance mm : +- 0.55 Rated speed rpm : 1175
· 5.5	nated speed (pill . 177)
1	rack travel ma : 4.00
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1090
WITH GOVERNOR +	Tolerance 1/min : + 15
†	
†	
GUIDE SLEEVE POSITION	·
SOLDE SCEEVE POSITION	LOW IDLE
I	
control lever	
position degree : -3	control lever
Rated speed rpm : 300	position degree : 69.0
Park America San Inc. 1970	tolerance degree : + 4.0
Rack travel in mm: 0.50	Control Louis difference
Tolerance mm : + 0.20	Control lever difference Grad : 18.0
governor spring	Grad : 18.0 tolerance degree : +- 6.0
pre-tension +	total dilica degli ee , ' U.U
click setting x : 3.75	Setting point w/out bumper spring
<u> </u>	3 ,
+	Rated speed rpm : 475
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 4.25
Pated speed size a 1000	Tolerance mm : + 0.10
Rated speed rom : 1000	Dated enood row . 400
†	Rated speed rpm : 100

CRT mm min. : > 19.00

Testing:

Rated speed rpm : 475
rack travel mm : 4.75
Tolerance mm : + 0.10

TORQUE CONTROL

Rated speed rpm : 1000 rack travel mm : 8.05 Tolerance mm : + 0.05

Rated speed rpm : 600 rack travel mm : 9.15 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : -Rated speed rpm : 600

Del. quantity

cm3/1000 strokes : 67.0

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50

Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : +- 10.0

Check tolerance

cm3/1000S. : \leftarrow 15.0

LOW IDLE

Rated speed rpm : 475

Rack travel in mm: 4.75
Tolerance mm: + 0.10

Del. quantity

cm3/1000 strokes : 13.5

J08

Tolerance cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +- 4.5 Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 22.10.97 Edition Test oil : ISO 4113

Combination No. : F 002 A0Z 070

Injection pump

Pump designation : PES6A95D320/3RS2881 EP type number : 9 410 037 215

Sovernor

Governer design. : RSV500...1100A2c948R

Governer no. : F 002 A20 249

Cust. part No. : 3933621

Customer—spec. information Customer : CDC Motor : 6BTA : 114.0 Power KM

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C 40 Tolerance °C : + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : ← 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

rest pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke min : 2.85 : + 0.05 2.85 Tolerance mm Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 : + 1.50 Tolerance mm

: 1-5-3-6-2-Firing order

: 4

: 0-60-120-180-240 Phasing

: -300

Tolerance : **←** 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 8.50

: +- 0.50 Tolerance

Check

tolerance °NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm :

109

Tolerance mm : + 0.05	+ Rated speed rpm : 1100
No.	Aneroid pressure
Del. quantity cm3/1000 strokes : 101.5	+ hPa : 1200
1000 SETORES . 101.3	+ Del. quantity + cm3/1000 strokes : 101.5
Tolerance	Tolerance
cm3/1000 strokes : + 1.0	cm3/1000 strokes : + 1.0
	Check tolerance
Check tolerance	cm3/1000s. : + 3.0
cm3/1000s. : + 3.0	Spreed
	+ Tolerance
Spreed	+ cm3/1000 strokes : 3.5
	+ Check tolerance
Tolerance	+ cm3/1000s. : 6.0
cm3/1000 strokes : 3.5	†
Charle della series	†
Check tolerance cm3/1000s. : 6.0	CONTROL I SUST
cm3/1000s. : 6.0	+ CONTROL LEVER
	I control lover
	+ control lever + position degree : 102.0
Rated speed rpm : 500	tolerance degree : + 4.0
	totalita deglice . 4.0
Rack travel in mm: 5.50	RATED SPEED
Tolerance mm : + 0.10	+ rack travel ma : 11.10
Del. quantity	Rated speed rpm : 1165
cm3/1000 strokes : 20.0	+ Tolerance 1/min : + 5
Tolerance	+
cm3/1000 strokes : + 2.0	+ rack travel mm : 4.00
Check tolerance	+ Rated speed rpm : 1245
cm3/1000s. : + 4.5	+ Tolerance 1/min : +- 5
Spreed	†
Tolerance	rack travel mm : 0.85
cm3/1000 strokes : 3.5 Check tolerance	+ Tolerance mm : + 0.55
7/45300	+ Rated speed rpm : 1300
cms/1090s. : 5.5	rack travel mm : 4.00
	+ Rated speed rpm : 1250
(B) SETTING OF INJECTION PUMP	+ Tolerance 1/min : + 15
WITH GOVERNOR	Total de Trianiti . 1 13
	1
	+
GUIDE SLEEVE POSITION	+ LOW IDLE
	+
sentual lavor	†
control lever	+ control lever
position degree : - 3	position degree : 79.0
Rated speed rpm : 800	tolerance degree : +- 4.0
Rack travel in mm : 0.50	Control lever difference
Tolerance mm : +- 0.20	+ Grad : 23.0
	tolerance degree : +- 6.0
governor spring	- User and adjited in the
pre-tension	+ Setting point w/out bumper spring
click setting x : 3.00	+
-	+ Rated speed rpm : 500
	rack travel mm : 5.00 Tolerance mm : + 0.10
FULL LOAD DELIVERY AT FULL LOAD STOP	+ Tolerance mm : + 0.10
	•

Rated speed rpm	: 100	+ rack travel mm : 13.0
T am min.	: > 19.00	† Tolerance mm : + 0.2
Testing:		Aneroid pressure
Rated speed rpm	. 500	hPa : 1200 + Rated speed rpm : 900
ack travel mm		
olerance ma	: 5.50	Del. quantity
oterance mm	: +- 0.10	cm3/1000 strokes : 118.
CODOLIE CONTROL		
TORQUE CONTROL	4400	+ Check tolerance
Rated speed rpm	: 1100	+ cm3/1000s. : + 4.0
rack travel mm Tolerance mm	: 12.15	†
folerance mm	: +- 0.05	
	-	+ Aneroid pressure
Rated speed rpm	: 750	† hPa : -
rack travel mm		Rated speed rpm : 500
Tolerance run	: ← 3.20	+ Del. quantity
	- - -	+ cm3/1000 strokes : 85.0
Rated speed rpm	: 1000	+ Tolerance
rack travel mm		+ cm3/1000 strokes : +- 1.1
Folerance mm	: + 0.20	+ Check tolerance
		- cm3/1000s. : + 3.1
enn hears here	• • •	I SIID/10003
Rated speed rpm rack travel mm Tolerance mm	. 17.75	I
OLAPANCA PO	13.33	I
ノンでに 位置 代で (横田	. — 0.20	STARTING FUEL DELIVERY
A. 11/2 (+
NEROID/ALTITUDE		+ Rated speed rpm : 100
OMPENSATOR TEST		rack travel ram : 20.50
		+ Tolerance mm : + 0.50
		+ Del. quantity
ETTING		+ cm3/1000 strokes : 120.5
		Tolerance
ated speed rpm	: 500	+ cm3/1000 strokes : + 10.0
ressure hPa	1200	Check tolerance
1033QIC HIQ	. 1200	- cm3/1000s. : +- 15.0
Rated speed rpm	: 500	I (1000). — (5.0
	. 500	I
ressure hpa	10.90	I
ack travel mm	: 10.80	T
olerance nm	: +- 0.10	LOW IDLE
EASUREMENT		+
		+ Rated speed rpm : 500
Rated speed riphi	; 50 0	†
		+ Rack travel in mm: 5.50
ressure hPa	: 800	+ Tolerance mm : + 0.10
ack travel mm	: 12.90	+ Del. quantity
olerance mm	: + 0.20	+ cm3/1000 strokes : 20.0
		+ Tolerance
ressure hPa	: 450	+ cm3/1000 strokes : + 2.0
ack travel mm	: 11.40	+ Check tolerance
olerance mm	· + 0.20	+ cm3/1000s. : +- 4.5
Occiding will	0.20	Spreed : +- 4.1
		+ Tolerance
FI	DAATEDTATT	
EL DELIVERY CHA	RACTERISTICS	+ Check tolerance + cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 20.06.95 Test oil : ISO 4113

Combination No. : 3 402 646 938

Injection pump

Pump designation : PE6P120A720RS7188

: -100

EP type number : 0 412 626 925

Governor

Governer design. : RQ200/950PA745-3 Governer no. : 0 421 801 579

Cust. part No. : 1334627

Customer—spec. information Customer : SCANIA Motor : DSC 11 21

TEST BENCH REQUIREMENTS

Inlet Line : 4.2

Vibration damper

(RoBo diaphragm) : 3.1

Test oil inlet

temp. $^{\circ}$ C : 40 Tolerance $^{\circ}$ C : \leftarrow 2.0

Overflow valve : 1 417 413 025

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant. per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.45
Tolerance mm : +- 0.05
Check

SHECK

tolerance mm : +- G.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

4

Phasing : 0-60-120-180-240

: -300

Tolerance : ← 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 250

Rack travel in mm : 4.70 Tolerance mm : + 0.10

Del. quantity	+ Rated speed rpm : 1243
cm3/1000 strokes : 16.0	+
Tolerance	Rack travel in mm : 65.53
cm3/1000 strokes : +- 3.0	Tolerance mm : + 1.30
Check tolerance	Toceratice into . += 1.50
	†
cm3/1000s. : +- 6.0	†
Spreed	
Tolerance	+ CONTROL LEVER
cm3/1000 strokes : 4.0	+
Check tolerance	+ control lever
cm3/1000s. : 8.0	position degree : 45.0
• 0.0	
	tolerance degree : + 4.0
(D) OFFITAL OF THE FORTON NAME	T
(B) SETTING OF INJECTION PUMP	- control lever
WITH GOVERNOR	+ position degree : 99.0
	+ tolerance degree : + 4.0
	+
GUIDE SLEEVE TRAVEL	+ RATED SPEED
	+ rack travel mm : 11.70
Rated speed rpm : 1005	Rated speed rpm : 995
guide sleeve	+ Tolerance 1/min : + 5
travel mm : 4.88	+ Check
Tolerance mm : +- 0.15	speed 1/min : +- 10
TOTEL BLICE INN . TO U. 15	T speed 1/min : +- 10
Raited speed rpm : 250	T mak travel on / 00
	rack travel mm : 4.00
guide sleeve	+ Rated speed rpm : 1115
travel mm : 1.41	+ Tolerance 1/min : + 15
Tolerance mm : + 0.20	+ Check
	+ speed 1/min : +- 20
Rated speed rpm : 930	
guide steeve	+ rack travel mm : 0.50
travel mm : 4.50	+ Tolerance mm : + 0.50
Tolerance mm : + 0.10	
Toter differ min . T- 0.10	Rated speed rpm : 1250
Debud aread are a 755	†
Rated speed rpm : 355	†
guide sleeve	†
travel mm : 2.97	
Tolerance mm : + 0.10	+ LOW IDLE
	+
Rated speed rpm : 520	+
guide sleeve	- control lever
travel mm : 4.50	position degree : 64.0
Tolerance mm : + 0.10	tolerance degree : + 4.0
TOTAL INC. INC. INC. INC. INC. INC. INC. INC.	T total diffe degree . *** 4.0
Rated speed rpm : 1045	I control layer
The same of the sa	control lever
guide steeve	position degree : 10.0
travel mm : 5.50	tolerance degree : + 4.0
Tolerance mm : + 0.10	+
	+ Setting point w/out bumper spring
Rated speed rpm : 1360	+
guide sleeve	+ Rated speed rpm : 150
travel mm : 11.50	
Tolerance mm : + 0.50	+ Testing:
, 5151 Q1105 (mil) 1 . 5130	The state of the s
	Rated speed rpm : 250
GUIDE SLEEVE POSITION	rack travel mm : 4.70
GOINE SEFEAC LOSTITOMA	
	+ Tolerance mm : + 0.10
and the form	†
control lever	+ rack travel mm : 2.00
position degree : 104	+ Rated speed rpm : 342

Tolerance 1/min	: ← 20
TORQUE CONTROL	
Rated speed rpm rack travel mm Tolerance mm	: 950 : 12.75 : + 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1500 : 12.75 : + 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 10.40 : ← 0.20
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 270 : 11.00 : + 0.15
Pressure hPa rack travel mm Tolerance mm	: 440 : 12.05 : + 0.05
FUEL DELIVERY CHA	NRACTERISTICS
Aneroid pressure hPa Rated speed rpm	: - : 950
Del. quantity cm3/1000 strokes	: 209.0
Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: + 4.0 : + 6.0
Aneroid pressure	• -
Rated speed rpm Del. quantity	: 500
cm3/1000 strokes	: 153.0

Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +- : +-	1.0 4.0	
STARTING FUEL DEL	EVERY		
Rated speed rpm rack travel mm Tolerance mm Del. quantity	: +-	100 10.40 0.20	
cm3/1000 strokes	:	165.0	
Tolerance cm3/1000 strokes Check tolerance	: +	20.0	
cm3/1000s.	: +-	24.0	
LOW IDLE Rated speed rpm		250	·
Rated speed rpm Rack travel in mm	:	4.70	
Rated speed rpm Rack travel in mm Tolerance mmm	Ť		
Rated speed rpm Rack travel in mm Tolerance mm Del. quentity cm3/1000 strokes	Ť	4.70	
Rated speed rpm Rack travel in mm Tolerance mm Del. quentity cm3/1000 strokes Tolerance cm3/1000 strokes	: +-	4.70 0.10	
Rated speed rpm Rack travel in mm Tolerance mm Del. quentity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: +-	4.70 0.10 16.0	
	: +-	4.70 0.10 16.0 3.0	

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Edition : 04.07.88 Test oil : ISO 4113

: 04.07.88

Combination No. : 9 400 230 107

Injection pump

Pump designation : PES6A100D320/3RS2691

: -2

EP type number : 9 410 230 028

Governor

Governer design. : RQV350...1200AB1233R

Governer no. : 9 420 231 018

Cust. part No. :

Customer-spec. information

Customer : C.D.C

Motor

: 6 CT e EC 8.3 L

Power KW

: 157.0

TEST BENCH REQUIREMENTS

Inlet line : 2

Test oil inlet

temp. °C

Tolerance °C

: +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1 688 901 017

Opening pressure

bar

208.5

Tolerance bar : +- 1.5

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0

Tolerance bar $: \leftarrow 1.0$

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Del. quantity

cm3/1000 strokes : 114.0

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance cm3/1000s.

: +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.

6.0

J16

	+
Rated speed rpm : 350	FIRE LOAD DELTHERY AT FIRE LOAD STOD
	FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in mm : 4.70	Rated speed rpm : 1200
Tolerance mm : + 0.10	+ Aneroid pressure
Del. quantity	+ hPa : 700
cm3/1000 strokes : 18.0	+ Del. quantity
Tolerance	+ cm3/1000 strokes : 114.0
cm3/1000 strokes : +- 2.0	+ Tolerance
Check tolerance	+ cm3/1000 strokes : + 1.0
cm3/1000s. : + 4.5	+ Check tolerance
Spreed	+ cm3/1000s. : $+$ 3.0
Tolerance cm3/1000 strokes : 3.5	+ Spreed
Check tolerance	+ Tolerance + cm3/1000 strokes : 3.5
cm3/1000s. : 5.5	+ Check tolerance
. 5.5	- cm3/1000s, : 6.0
	T (35) (6663.
(B) SETTING OF INJECTION PUMP	
WITH GOVERNOR	
	+ CONTROL LEVER
GUIDE SLEEVE TRAVEL	+ control lever
	position degree : 97.0
Rated speed rpm : 1200	+ tolerance degree : + 4.0
guide steeve	+
travel mm : 6.95	+ RATED SPEED
Tolerance man : +- U.05	rack travel mm : 9.80
0.1	+ Rated speed rpm : 1245
Rated speed rpm : 250	+ Tolerance 1/min : + 5
guide sleeve	†
travel am : 0.10	rack travel mm : 4.00 Rated speed rpm : 1330
Tolerance ma : + 0.10	Rated speed rpm : 1330
Rated speed rpm : 350	+ Tolerance 1/min : + 15
guide steeve	rack travel mm : 0.50
travel mm : 1.25	Tolerance mm : +- 0.50
Tolerance mm : + 0.25	Rated speed rpm : 1400
TO COT COT COT COT COT COT COT COT COT C	T Maced speed (pill) . (400
Rated speed rpm : 450	rack travel mm : 4.00
quide sleeve	
travel am : 2.15	+
travel am : 2.15 Tolerance am : + 0.25	+
Rated speed rpm : 1350	+ LOW IDLE
guide steeve	+
travel mm : 8.45	†
Tolerance mm : + 0.25	+ control lever
	+ position degree : 64.0
OUTDE OF FEIT DOCTTION	tolerance degree : + 4.0
GUIDE SLEEVE POSITION	Continue maintain and the continue to the cont
	+ Setting point w/out bumper spring
control lever	Poted speed pro . 400
position degree : - 1	+ Rated speed rpm : 100
Rated speed rpm : 1435	CRT mm min. :> 8.00
Nation speed (pill + 1403	I CAT (MIII) 1111

Testing:

Rack travel in mm : 8.00

Rated speed rpm	:		350
rack travel ma	:		4.70
Tolerance ma		+	0.10

Rated speed rpm : 385

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hPa 700 : rack travel mm 10.85 Tolerance ma : +- 0.05

Rated speed rpm 500 Pressure hPa rack travel mm 9.40 Tolerance man : + 0.10

MEASUREMENT

Rated speed rpm 500

Pressure hPa 335 rack travel min 10.40 Tolerance mm : + 0.20

Pressure hPa 240 rack travel mm 9.75 : ← 0.05 Tolerance ma

Start interlock

Rated speed rpm :> 100 Rated speed rpm : < 290

Check

speed 1/min : > 80 Check

speed 1/min : < 310

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 86.5

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance cm3/1000s.

: +-4.0 STARTING FUEL DELIVERY

Rated speed rpm 100 rack travel mm : 20.00 Tolerance mm : +- 1.00

Del. quantity

cm3/1000 strokes : 160.0

Tolerance

cm3/1000 strokes : \leftarrow 10.0

Check tolerance

cm3/1000s. : + 15.0

LOW IDLE

Rated speed rpm : 350

Rack travel in am : 4.70 : + 0.10 Tolerance min Del. quantity

cm3/1000 strokes : 18.0 Tolerance

2.0

cm3/1000 strokes : +-

Check tolerance cm3/1000s. : +-4.5

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 24,10,97

Test oil : 150 4113

Combination No. : F 000 409 888

Injection pump

Pump designation : PES6P110A720RS3389

EP type number : F 000 400 002

6overnor

Governer design. : RQV300...1300PA1343K

Governer no. : F 000 420 500

Cust. part No. :

Customer-spec. information

Customer : MB8

locor : OM366LA-EURO II

Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C 40 temp. °C : 40
Tolerance °C : ← 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.3

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar

Tolerance bar : +- 1.5

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter : 3.0 x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 3.15
Tolerance mm : + 0.05

Check

: ← 0.10 tolerance mm

Rack travel in mm : 21.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 13.90 Tolerance m_0 : $\leftarrow 0.05$

Del. quantity

cm3/1000 strokes : 115.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance cm3/1000 strokes	: 4.0
Check tolerance cm3/1000s.	: 7.5
Rated speed rpm	: 300
Rack travel in man	
Tolerance mm	: ← 0.20
Del. quantity cm3/1000 strokes	: 8.5
Tolerance	. 6.5
cm3/1000 strokes	: + 2.5
Check tolerance	
cm3/1000s. Spreed	: ← 5.0
Tolerance	
cm3/1000 strokes	: 4.5
Check tolerance cm3/1000s.	: 7.5
CM3/ 10003.	: 7.5
GUIDE SLEEVE TRAV	EL
Rated speed rpm	: 1350
guide sleeve travel ma	
CLRAGE UM	. 0.50
	: 8.50 : + 0.10
Tolerance mm Rated speed rpm	: +- 0.10
Tolerance mm Rated speed rpm guide sleeve	: + 0.10 : 300
Tolerance mm Rated speed rpm	: +- 0.10
Tolerance mm Rated speed rpm quide sleeve travel mm Tolerance mm	: + 0.10 : 300 : 1.05 : + 0.25
Rated speed rpm guide sleeve travel maa Tolerance mm Rated speed rpm guide sleeve	: + 0.10 : 300 : 1.05 : + 0.25 : 500
Tolerance mm Rated speed rpm guide sleeve travel mma Tolerance mm Rated speed rpm guide sleeve travel mma	: + 0.10 : 300 : 1.05 : + 0.25 : 500 : 3.05
Rated speed rpm guide sleeve travel maa Tolerance mm Rated speed rpm guide sleeve	: + 0.10 : 300 : 1.05 : + 0.25 : 500
Rated speed rpm guide sleeve travel man Tolerance mmn Rated speed rpm guide sleeve travel man Tolerance mmn Rated speed rpm Rated speed rpm	: + 0.10 : 300 : 1.05 : + 0.25 : 500 : 3.05
Rated speed rpm guide sleeve travel man Tolerance mmn Rated speed rpm guide sleeve travel man Tolerance mmn Rated speed rpm guide sleeve travel man Tolerance mmn	: + 0.10 : 300 : 1.05 : + 0.25 : 500 : 3.05 : + 0.25 : 700
Rated speed rpm guide sleeve travel man Tolerance mmn Rated speed rpm guide sleeve travel man Tolerance mmn Rated speed rpm guide sleeve travel man guide sleeve travel mmn	: + 0.10 : 300 : 1.05 : + 0.25 : 500 : 3.05 : + 0.25 : 700 : 4.35
Rated speed rpm guide sleeve travel man Tolerance mm Rated speed rpm guide sleeve travel man Tolerance mm Rated speed rpm guide sleeve travel man Tolerance mm Tolerance mm Tolerance mm	: + 0.10 : 300 : 1.05 : + 0.25 : 500 : 3.05 : + 0.25 : 700 : 4.35 : + 0.25
Rated speed rpm guide sleeve travel man Tolerance mm Rated speed rpm guide sleeve travel man Tolerance mm Rated speed rpm guide sleeve travel mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	: + 0.10 : 300 : 1.05 : + 0.25 : 500 : 3.05 : + 0.25 : 700 : 4.35
Rated speed rpm guide sleeve travel man Tolerance mm Rated speed rpm guide sleeve travel man Tolerance mm Rated speed rpm guide sleeve travel mm Rated speed rpm guide sleeve travel mm Rated speed rpm guide sleeve travel mm Rated speed rpm guide sleeve	: + 0.10 : 300 : 1.05 : + 0.25 : 500 : 3.05 : + 0.25 : 700 : 4.35 : + 0.25 : 1780
Rated speed rpm guide sleeve travel man Tolerance mm Rated speed rpm guide sleeve travel man Tolerance mm Rated speed rpm guide sleeve travel mm Rated speed rpm guide sleeve travel mm Tolerance mm Rated speed rpm Rated speed rpm	: + 0.10 : 300 : 1.05 : + 0.25 : 500 : 3.05 : + 0.25 : 700 : 4.35 : + 0.25
Rated speed rpm guide sleeve travel man Tolerance mmn Rated speed rpm guide sleeve travel man Tolerance mmn Rated speed rpm guide sleeve travel mmn Tolerance mmn Rated speed rpm guide sleeve travel mmn Tolerance mmn Rated speed rpm guide sleeve travel mmn rolerance mmn Rated speed rpm guide sleeve travel mmn	: + 0.10 : 300 : 1.05 : + 0.25 : 500 : 3.05 : + 0.25 : 700 : 4.35 : + 0.25 : 1780 : 13.50

FULL LOAD DELIVERY AT FULL LOAD STOP

Rated speed rpm : Aneroid pressure hPa : Del. quantity cm3/1000 strokes : Tolerance cm3/1000 strokes : Check tolerance cm3/1000s. : Spreed Tolerance cm3/1000 strokes : Check tolerance cm3/1000 strokes :	1300 1000 115.5 + 1.0 + 4.0 4.0 7.5
CONTROL LEVER	
control lever position degree : tolerance degree :	+ 110.0 + 6.0
RATED SPEED rack travel mm : Rated speed rpm : Tolerance 1/min :	12.90 1340 +- 5
rack travel mm : Rated speed rpm : Tolerance 1/min :	4.00 1480 +- 15
rack travel mm : Tolerance mm : Rated speed rpm :	0.50 +- 0.50 1600
LOW IDLE	
control lever position degree : tolerance degree :	68.0 +- 6.0
Setting point w/out	bumper spring
Rated speed rpm :	200
CRT mm min. :	> 7.00
Testing:	
Rated speed rpm : rack travel mm : Tolerance mm :	300 5.50 ← 0.20
5	105

Rated speed rpm : 425

		+ Del. quantity	. 04
E CONTROL		cm3/1000 strokes	: 97
speed rpm	: 1300	+ Tolerance	
travel mm	: 13.90	+ cm3/1000 strokes	: - 2.
/でし (機能)	13.70	† Check tolerance	
e man	: ← 0.05		: + 5.
speed rpm	: 600	Ī	
avel mm	: 12.90	+ Aneroid pressure	
	: + 0.10	+ hPa	: 1000
	0.10		780
speed rpm	: 780	Rated speed rpm	
speed rpm	. /OU	rack travel ma	: 13.1
ravel mm		+ Tolerance mm	: ← 0.1
e ma	: +- 0.10	+ Del. quantity	
		+ cm3/1000 strokes	: 96.
		Tolerance	
/ALTITUDE		+ cm3/1000 strokes	: + 2.
ATUR TEST		+ Check tolerance	
		- cm3/1000s.	: +- 5.6
		1	• • •
		+	
الماريسين	. 500	+ Aneroid pressure	
peed rom	: 500	† hPa	:
e hPa	: 1000		: 500
e hPa avel mm ce mm	: 12.90	+ Del. quantity	
e mm	: +- 0.05	+ cm3/1000 strokes	: 36.0
		+ Tolerance	
eed rom	: 500	+ cm3/1000 strokes	. + 1
nPa	•	+ Check tolerance	• • •
C IN G	•		
MCNT		+ cm3/1000s.	: +- 4.1
MENT		Spreed	
		+ Tolerance	
peed rpm	: 500	+ cm3/1000 strokes	: 4.0
		+ Check tolerance	
re hPa	: 250		: 7.5
avel mm	: 0.65	+	
ice mm	: ← 0.05	1	
ure hPa	: 500	STARTING FUEL DELI	VERY
	: 1.90	+	- •
	: + 0.10	Rated speed rpm	: 100
			20.00
		Tolerance mm	: + 1.00
nterlock			. — 1.00
HERLOCK		+ Del. quantity	
		+ cm3/1000 strokes	: 85.6
peed rpm	: > 100	+ Tolerance	
peed rpm	: < 120	+ cm3/1000 strokes	: ← 10.0
		+ Check tolerance	
			: + 14.0
min	: > 80	1	
	-	1	
nin	: < 180	1	
***	100	<u> </u>	
		LOW IDLE	
ELIVERY CHA	ARACTERISTICS	+	
ELIVERY CHA	ARACTERISTICS	Rated speed rpm	: 300
		+	
ERY CHA		Rated speed rpm Rack travel in mm Tolerance mm	: 5.50

:	8.5
: +-	2.5
: +-	5.0
:	4.5
:	7.5
	: :+- :+- :

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 15.10.91 Test oil : ISO 4113

Combination No. : 9 400 230 107

Injection pump

Pump designation : PES6A1000320/3RS2691

EP type number : 9 410 230 028

Governor

Governer design. : RQV350...1200AB1233R

Coverner no. : 9 420 231 018

Cust. part No. : 3912643

Customer-spec. information Customer : C.D.C Motor : 6CT830 Power KW : 157.0

TEST BENCH REQUIREMENTS

Inlet line : 2

Test cil inlet

temp. °C Tolerance °C 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

har 208.5 Tolerance bar : **←** 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 28.0 Tolerance bar : + 1.0

: 2.85 Prestroke mm : +- 0.05 Tolerance mm Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance ma : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : ← 0.50

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Del. quantity cm3/1000 strokes : 113.5

Tolerance

cm3/1000 strokes : \leftarrow 1.0

Check tolerance

cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes :

4.0

Check tolerance

cm3/1000s.

6.5

		+		
Rated speed rpm	: 350	‡	FULL LOAD DELIVER	 Y
Rack travel in mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: ← 0.10 : 19.0	+++++++++++++++++++++++++++++++++++++++	Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000s.	••••••••••
(B) SETTING OF IN	JECTION PUMP	1		•
			CONTROL LEVER	
GUIDF :LEEVE TRAV	EL	Ī	control lever position degree	:
Rated speed rpm guide steeve	: 1200	‡	tolerance degree	:
travel mi	: 5.90	1	RATED SPEED rack travel mm	•
Rated speed rpm guide sleeve	: 250	1	Rated speed rpm Tolerance 1/min	:
travel mm Tolerance mm	: 0.10 : - 0.10	Ŧ		•
		Ŧ	rack travel mm Rated speed rpm	:
Rated speed rpm guide sleeve		Ŧ	Tolerance 1/min	:
travel mm Tolerance mm	: 1.25 : + 0.25	‡	rack travel mm Tolerance mm	:
	: 450	Ŧ	Rated speed inpil	•
guide sleeve travel mm Tolerance mm	: 2.15 : + 0.25	‡	rack travel mm	:
Rated speed rpm guide sleeve	: 1350	1	LOW IDLE	
travel mm Tolerance mm	: 8.40 : + 0.25	Ī	COM IDLE	
		+	control lever	
GUIDE SLEEVE POSI	LION	 	position degree tolerance degree	
		‡	Setting point w/ou	ıt
control lever position degree	: - 1	‡	Rated speed rpm	:
Rated speed rpm		‡	Testing:	
Rack travel in mm Tolerance mm		‡	Rated speed rpm	:
		-	CACK (CAVE) NO	

Rated speed rpm Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes	: 1200 : 700 : 113.5 : ← 1.0 : ← 3.0 : 4.0
Check toterance cm3/1000s.	: 6.5
CONTROL LEVER	
control lever position degree tolerance degree	: 43.0 : + 3.0
RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 9.80 : 1245 : + 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1330 : + 15
rack travel mm Tolerance mm Rated speed rpm	: 0.50 : + 0.50 : 1400
rack travel mm	: 4.00

LOW IDLE	
control lever position degree tolerance degree	: 12.0 : + 3.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 100
Testing:	750
Rated speed rpm rack travel mm	: 350 : 4.70

AT FULL LOAD STOP

Tolerance mm	: ← 0.10
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 700 : 10.85 : + 0.05
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : - : 9.60 : + 0.10
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travet mm Toterance mm	: 345 : 10.50 : ← 0.20
Pressure hPa rack travel mm Tolerance mm	: 260 : 9.95 : + 0.05
Start interlock	
Rated speed rpm Rated speed rpm	
Check speed 1/min	: > 80
Check speed 1/min	: < 300
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	: -
Rated speed rpm Del. quantity	: 500
cm3/1000 strokes Tolerance	: 87.5
cm3/1000 strokes Check tolerance	: +- 2.0
	: +- 4.0

Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	• • • • • • • • • • • • • • • • • • • •	1 1 1	100 20.00 1.00 160.0 10.0	

LOW IDLE				
Rated speed rpm	:		350	
Rack travel in mm Tolerance mm Del. quantity	:	+	4.70 0.10	
cm3/1000 strokes Tolerance	:		19.0	
cm3/1000 strokes Check tolerance	:	+-	2.0	
cm3/1000s. Spreed	:	+	4.5	
Tolerance cm3/1000 strokes Check tolerance	:		6.0	
cm3/1000s.	:		8.0	
-				

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 30, 10, 97 : ISO 4113

Combination No.

: F 000 409 007

Injection pump

Pump designation : PES6P110A720RS3389

EP type number : F 000 400 002

Governor

Governer design. : RQV300...1300PA1343K

: F 000 420 500 Governer no.

Cust. part No. : 0280743002

Customer-spec, information

Customer

: MBB

Motor : OM366LA-EURO II

Power KW

: 150.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C

40

Tolerance °C

: + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.3

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

: 208.5

Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

J26

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 3.15 : + 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 21.00

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : ← 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 14.00 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 115.0

Tolerance cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s.

: + 4.0

Spreed

Tolerance +	Tolerance
cm3/1000 strokes : 4.0	cm3/1000 strokes : + 1.0
1	Check tolerance
Check tolerance	$cm3/1000$ S. : \leftarrow 4.0
cm3/1000s. : 7.5	Spreed
	Tolerance
	cm3/1000 strokes : 4.0
\mathbf{I}	Check tolerance
Rated speed rpm : 300	cm3/1009s. : 7.5
rated speed (pill : 500	CM3/10035. : 7.3
Rack travel in mm : 5.60	
Tolerance mm : + 0.20	
Del. quantity	CONTROL LEVER
cm3/1000 strokes : 10.5	CONTROL CEVER
Tolerance	aantaal lawan
cm3/1000 strokes : ← 2.5	control lever
	position degree : 108.0
Check tolerance	tolerance degree : +- 4.0
cm3/1000s. : + 5.0	DATES ORCES
Spreed	RATED SPEED
Tolerance +	rack travel mm : 12.90
cm3/1000 strokes : 4.5	Rated speed rpm : 1340
Check tolerance	Tolerance 1/min : + 5
cm3/1000s. : 7.5	
†	rack travel mm : 4.00
+	Rated speed rpm : 1485
(B) SETTING OF INJECTION PUMP	Tolerance 1/min : + 15
WITH GOVERNOR +	
+	rack travel mm : 0.50
	Tolerance mm : + 0.50
GUIDE SLEEVE TRAVEL	Rated speed rpm : 1600
+	
Rated speed rpm : 1356	
guide sleeve	
travel ma : 9.19	
Tolerance mm : +- 0.15	LOW IDLE
	
Rated speed rpm : 300 +	
guide sleeve +	control lever
travel mm : 1.45	position degree : 66.0
Tolerance mm : + 0.20	tolerance degree : +- 4.0
+	
Rated speed rpm : 910	Setting point w/out bumper spring
guide sleeve	
travel mm : 5.70	Rated speed rpm : 200
Tolerance mm : + 0.25	
+	CRT mm min. : > 7.00
Rated speed rpm : 1710 +	
guide sleeve	Testing:
travel mm : 13.50	
Tolerance mm : + 0.50	Rated speed rpm : 300
+	rack travel mm : 5.60
	Tolerance mm : + 0.20
FULL LOAD DELIVERY AT FULL LOAD STOP	
+	Rated speed rpm : 425
Rated speed rpm : 1300	•
Anaroid pressure	
hPa : 1000	TORQUE CONTROL
Del. quantity	Rated speed rpm : 1300
cm3/1000 strokes : 115.0	rack travel mm : 14.00
+	Tolerance mm : + 0.05
· ·	

		4			
Rated speed rpm rack travel mm Tolerance mm	: 13.00	Aneroid pressure hPa	:		1000
Pated cheed now	• 790	Rated speed rpm	:		780
Rated speed rpm rack travel mm	· 17 25	rack travel mm Tolerance mm	:	A.	13.25
Tolerance mm	: + 0.05	+ Del. quantity	•	-	0.05
TOTEL CHIEC MEN	0.05	cm3/1000 strokes			94.5
		Tolerance	•		74.3
ANEROID/ALTITUDE		cm3/1000 strokes	• .	_	2.0
COMPENSATOR TEST		Check tolerance	•	•	2.0
		cm3/1000s.	: •	+-	5.0
SETTING		‡			
Rated speed rpm	: 500	Aneroid pressure hPa			
Pressure hPa		+ nra + Rated speed rpm	•		500
rack travel mm		+ Del. quantity	•		
Tolerance ma		cm3/1000 strokes	•		39.0
ं चर्चर आराज्य । व्यव	. 0.05	Tolerance	•		J7.U
Rated speed rpm	: 500	- cm3/1000 strokes	• •	+	1.0
Pressure hPa	: -	+ Check tolerance	•		
		+ cm3/1000s.	: .	+-	4.0
MEASUREMENT		Spreed			
		+ Tolerance			
Rated speed row	: 500	+ cm3/1000 strokes	:		4.0
•		+ Check tolerance			
Pressure hPa	: 250	+ cm3/1000s.	:		7.5
rack travel mm	: 0.70	+			
Tolerance ma	: + 0.05	+			
D	560				
Pressure hPa	: 500	+ STARTING FUEL DEL	IVE	RY	
rack travel mm	: 2.00 : + 0.10	† Batad anad ana			400
Tolerance mm	: 0.10	+ Rated speed rpm	:		100
		+ rack travel mm	:		20.00
Start interlock		Tolerance mm	: -	-	1.00
Stant Intentock		Del. quantity cm3/1000 strokes			9/. F
Rated speed rpm	: > 100	Tolerance	•		04.3
Rated speed rom		t roterance + cm3/1000 strokes	• -		10.0
have speed this	. , 200	Check tolerance	•		10.0
Check			• •	-	14.0
speed 1/min	: > 80	1	•	•	17.0
Check		+			
speed 1/min	: < 300	+			
					
ELE SELTIFON CUA	DAATESTAT				
FUEL DELIVERY CHA	KACIERISTICS	The standard and a standard			700
***************************************		Rated speed rpm	:		300
Aneroid pressure		Rack travel in mm	•		5 40
hPa	: 1000	Tolerance mm	•		0.20
Rated speed rpm		Del. quantity	• 1	•	0.20
Del. quantity	. 500	cm3/1000 strokes	•		10.5
cm3/1000 strokes	: 90.0	+ Tolerance	•		,0.5
Tolerance	, , , , ,	cm3/1000 strokes	• 4	-	2.5
cm3/1000 strokes	; ← 2.0	+ Check tolerance	• '		د.ي
Check tolerance	2.0	+ cm3/1000s.	: 1	-	5.0
cm3/1000s.	: ← 5.0	Spreed	•		٧.٥
		1			

Tolerance : 4.5 Check tolerance cm3/1000s. : 7.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : ISO 4113

: 28,10,97

Combination No. : F 000 409 205

Injection pump

Pump designation : PES6A95D32ORS2806 EP type number : 0 410 896 898

Governor

Governer design. : RSV375...1150A2C939

Governer no. : F 000 420 700

Cust. part No. : 82607900

Customer-spec. information Customer : VALMET Motor : 620 DS Power KW : 110.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C : **←** 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

: 173.5 bar Tolerance bar

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length man :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : 2.75 : + 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in ma : 13.50 : + 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : **←** 0.50

Check

tolerance "NW : → 0.75

BASIC SETTING

Rated speed rpm : 1150

Rack travel in mm: 12.15 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 102.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

: +- 3.0 cm3/1000s.

Spreed

Tolerance cm3/1000 strokes : 3.5 Check tolerance	Check tolerance cm3/1000s. : 8.0
cm3/1000s. : 8.0	CONTROL LEVER
	CONTROL LEVER
Rated speed rpm : 375	control lever position degree : 101.0 tolerance degree : +- 4.0
Rack travel in mm: 3.50	DATED ODEED
Tolerance mm : + 0.10 + Del. quantity +	RATED SPEED rack travel mm : 11.15
cm3/1000 strokes : 8.0	Rated speed rpm : 1185
Tolerance +	Tolerance 1/min : + 5
cm3/1000 strokes : \(\phi\) 2.0 + Check tolerance +	rack travel mm : 4.00
cm3/1000s. : + 4.5	Rated speed rpm : 1280
Spreed	Tolerance 1/min : + 15
Tolerance +	
cm3/1000 strokes : 5.5 + Check tolerance +	rack travel mm : 0.85 Tolerance mm : +- 0.55
cm3/1000s. : 9.0	Rated speed rpm : 1360
+	The state of the s
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	
†	LOW IDLE
GUIDE SLEEVE POSITION +	control lever
÷	position degree : 73.0
control lever	tolerance degree : +- 4.0
position degree : -3	Setting point w/out bumper spring
Rated speed rpm : 800	
Park toward to an a Co./F	Rated speed rpm : 375
Rack travel in mm: 0.65 + Tolerance mm: : + 0.35 +	rack travel mm : 3.00 Tolerance mm : +- 0.10
Total di loc lika	Total differ than . Total
governor spring + pre-tension +	Rated speed rpm : 100
click setting x : 3.50	CRT mm min. :> 19.00
<u> </u>	Testing:
FULL LOAD DELIVERY AT FULL LOAD STOP	resting.
+	Rated speed rpm : 375 rack travel mm : 3.50 Tolerance mm : + 0.10
Rated speed rpm : 1150	rack travel mm : 3.50
Aneroid pressure	loterance mm : +- U.10
Del. quantity	rack travel mm : 2.00
cm3/1000 strokes : 102.5	Rated speed rpm : 420
Tolerance	Tolerance 1/min : + 30
cm3/1000 strokes : + 1.0 + Check tolerance	
cm3/1000s. \div 3.0	TORQUE CONTROL
Spreed	Rated speed rpm : 1150
Tolerance	45.45
	rack travel mm : 12.15
cm3/1000 strokes : 3.5	rack travel mm : 12.15 Tolerance mm : +- 0.05

Rated speed rpm	:	700
rack travel mm	:	12.85
Tolerance mm	: +	- 0.05

Rated speed rpm : 800 rack travel mm : 12.70 Tolerance mm : + 0.05

Rated speed rpm : 1100 rack travel mm : 12.20 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa Rated speed rpm : 700 Del. quantity cm3/1000 strokes : 105.5 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1600s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 5.0 Check tolerance am3/1000s. 8.9

rack travel mm : 12.70
Tolerance mm : + 0.05

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm: : 20.00 Tolerance mm: : + 1.00 Del. quantity cm3/1000 strokes : 196.0 Tolerance cm3/1000 strokes : + 7.5 Check tolerance cm3/1000s. : + 10.0

LOW IDLE

Rated speed rpm : 375

Rack travel in mm : 3.50 Tolerance mm : + 0.10 Del. quantity
cm3/1000 strokes : 8.0
Tolerance
cm3/1000 strokes : +- 2.0
Check tolerance
cm3/1000s. : +- 4.5
Spreed
Tolerance
cm3/1000 strokes : 5.5
Check tolerance
cm3/1000s. : 9.0

End of test specification sheet

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Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 07.11.97 Test oil : ISO 4113

Combination No. : F 000 409 207

Injection pump

Pump designation : PES6A95D410RS2812 EP type number : 9 400 084 028

Governor

Governer design. : RQV350...1300AB1330L

6overner no. : F 000 420 304

Cust. part No. :

Customer-spec. information Customer : MWM

Motor : 6.10 TCA EURO II

: 154.0 Power KW

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

: 0 681 343 009 assembly

Opening pressure

173.5 bar Tolerance bar **:** ← 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm : +-2.80 : + 0.05

Check

: + 0.10 tolerance mm

Rack travel in mm: 10.50 : **←** 1.50 Tolerance mm

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

Beginning of delivery differende

and maximum rack

Tolerance mm : + 150 Difference * CS : 2.00

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.40 : + 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 118.0

Tolerance cm3/1000 strokes : + 1.0	guide sleeve travel mm : 8.55 Tolerance mm : + 0.25
Check tolerance cm3/1000s. : +- 3.0	
Spreed	GUIDE SLEEVE POSITION
Tolerance cm3/1000 strokes : 3.5	control lever position degree : - 3 Rated speed rpm : 1485
Check tolerance : 8.0	Rack travel in mm : 16.50 Tolerance mm : + 1.30
Rated speed rpm : 350	FULL LOAD DELIVERY AT FULL LOAD STOP
Rack travel in mm: 6.10 Tolerance mm: + 0.10 Del. quantity cm3/1000 strokes: 16.0	Rated speed rpm : 1300 Aneroid pressure hPa : 1200
Tolerance : + 2.0 Check tolerance	Del. quantity cm3/1000 strokes : 118.0 Tolerance cm3/1000 strokes : +- 1.0
cm3/1000s. : + 4.5 Spreed Tolerance	Check tolerance : + 3.0 Spreed
cm3/1000 strokes : 5.5 Check tolerance cm3/1000s : 9.0	Tolerance : 3.5 Check tolerance
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	cm3/1000s. : 8.0
GUIDE SLEEVE TRAVEL	control lever
Rated speed rpm : 800 guide sleeve	position degree : 116.0 tolerance degree : +- 6.0
travel mm : 3.95 Tolerance mm : → 0.25	RATED SPEED rack travel mm : 12.40 Rated speed rpm : 1390
Rated speed rpm : 1350 + guide sleeve + travel mm : 7.20 +	Tolerance 1/min : + 5 rack travel mm : 4.00
Tolerance rm : → 0.10	Rated speed rpm : 1560 Tolerance 1/min : +- 15
Rated speed rpm : 300 guide sleeve travel mm : 1.05 Tolerance mm : + 0.25	rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1730
Rated speed rpm : 550 + guide sleeve +	
travel mm : 2.75 Tolerance mm : + 0.25	LOW IDLE
Rated speed rpm : 1500	

K06

control lever position degree tolerance degree	: 69.0 : + 6.0
Setting point w/c	out bumper spring
Rated speed rpm	: 100
CRT mm min.	: > 8.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 6.10 : ← 0.10
Rated speed rpm	: 475
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1300 : 13.40 : + 0.05
Rated speed rpm rack travel mm Tolerance mm	: 800 : 13.40 : ← 0.05
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 13.40 : + 0.05
Rated speed rpm Pressure hPa	: 500 : -
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mm Tolerance mm	: 210 : 1.40 : + 0.10
Pressure hPa rack travel mm Tolerance mm	: 130 : 0.50 : + 0.05
Pressure hPa rack travel mm Tolerance mm	: 760 : 3.50 : + 0.10

Pressure hPa rack travel mm Tolerance mm	: 300 : 1.80 : + 0.05	
Start interlock		
Rated speed rpm Rated speed rpm	: > 100 : < 260	
Check speed 1/min Check	: > 80	
speed 1/min	: < 280	
FUEL DELIVERY CHARACTERISTICS		
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: 1200 : 800 : 115.5 : +- 2.0	
Check tolerance cm3/1000S. Spreed Tolerance	: + 4.0	
cm3/1000 strokes Check tolerance	: 5.0	
cm3/1000s.	: 8.0	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes	: - : 500 : 49.5 : + 1.0	
Check tolerance		
cm3/1000S. Spreed Tolerance	: + 3.0	
cm3/1000 strokes	: 3.5	
Check tolerance cm3/1000s.	: 8.0	
STARTING FUEL DEL	IVERY	
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes	: 100 : 20.00 : + 1.00 : 152.0	

Tolerance cm3/1000 strokes : +- 8.0 Check tolerance cm3/1000s. : +- 11.0

LOW IDLE

Rated speed rpm : 350 Rack travel in mm: 6.10 Tolerance ma : ← 0.10 Del. quantity cm3/1000 strokes : 16.0 Tolerance cm3/1000 strokes : \leftarrow 2.0 Check tolerance cm3/1000s. : +- 4.5 Spreed Tolerance cm3/1000 strokes : 5.5 Check tolerance cm3/1000s. 9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 11.11.97 : ISO 4113

Combination No. : F 002 A0Z 023

Injection pump

Pump designation : PES6A95D320/3RS2881

EP type number : 9 410 037 215

Governor

Governor design. : RSV500...1000A0c895R

Governer no. : F 002 A20 217

Cust. part No. : 3929405

Customer-spec. information Customer : CDC Motor : 6BT

Power KW

: 104.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Tolerance *C : + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : ← C.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

: 208.5

Tolerance bar

: +- 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

K09

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar :

Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : ← 0.10

Rack travel in mm: 10.50

Tolerance mm : \leftarrow 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

Start of delivery blocking

*NW after s.o.d. : 7.00

Tolerance

: **←** 0.50

Check

tolerance *NW : +- 0.75

Barrel no.

: 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 11.95

Tolerance mm : \leftarrow 0.05

Del. quantity +	- Aneroid pressure
cm3/1000 strokes : 101.0	· hPa : 900
	Del. quantity
Tolerance	cm3/1000 strokes : 101.0
cm3/1000 strokes : +- 1.0	· Tolerance
VIII) 1000 311 0NES . 1 1.0	
Charle de la rene	cm3/1000 strokes : +- 1.0
Check tolerance	Check tolerance
cm3/1000s. : +- 3.0	cm3/1000s. : +- 3.0
	· Spreed
Spreed	· Toleranse
+	cm3/1000 strokes : 3.5
Tolerance	Check tolerance
cm3/1000 strokes : 3.5	cm3/1000s. : 6.0
	. 0.0
Check tolerance	
cm3/1000s. : 6.0	
. 0.0	CONTROL LEVER
	CONTROL LEVER
†	
Data dama da wasan (COO)	control lever
Rated speed rpm : 500	position degree : 91.0
†	tolerance degree : +- 4.0
Rack travel in mm : 5.30	•
Tolerance mm : + 0.10	RATED SPEED
Del. quantity	rack travel mm : 10.90
cm3/100G strokes : 18.5	Rated speed rpm : 1065
Tolerance	Tolerance 1/min : + 5
cm3/1000 strokes : + 2.0	. To certaince Training . V
Check tolerance	mack through me / 00
cm3/1000s. : + 4.5	rack travel mm : 4.00
	Rated speed rpm : 1125
Spreed	Tolerance 1/min : +- 5
Tolerance	
cm3/1000 strokes : 3.5	rack travel mm : 0.85
Check tolerance +	Tolerance mm : +- 0.55
cm3/1000s. : 5.5	Rated speed rpm : 1250
1	
1	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1140
WITH GOVERNOR	Tolerance 1/min : +- 15
WITH GOVERNOR	Total differential total differential differential total differential differential total differential
T	
AUTA DI COMINE DANTE DANTE	
GUIDE SLEEVE POSITION +	
+	LOW IDLE
1	
τ	
control lever	
control lever position degree : - 3	control lever
position degree : -3	
position degree : -3	position degree : 74.0
position degree : -3 Rated speed rpm : 800	
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50	position degree : 74.0 tolerance degree : +- 4.0
position degree : -3 Rated speed rpm : 800	position degree : 74.0 tolerance degree : +- 4.0 Control lever difference
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20	position degree : 74.0 tolerance degree : + 4.0 Control lever difference Grad : 17.0
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	position degree : 74.0 tolerance degree : +- 4.0 Control lever difference
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	position degree : 74.0 tolerance degree : + 4.0 Control lever difference Grad : 17.0 tolerance degree : + 6.0
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring	position degree : 74.0 tolerance degree : + 4.0 Control lever difference Grad : 17.0
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	position degree : 74.0 tolerance degree : + 4.0 Control lever difference Grad : 17.0 tolerance degree : + 6.0 Setting point w/out bumper spring
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50	position degree : 74.0 tolerance degree : + 4.0 Control lever difference Grad : 17.0 tolerance degree : + 6.0 Setting point w/out bumper spring Rated speed rpm : 500
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension	position degree : 74.0 tolerance degree : + 4.0 Control lever difference Grad : 17.0 tolerance degree : + 6.0 Setting point w/out bumper spring Rated speed rpm : 500 rack travel mm : 4.30
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50	position degree : 74.0 tolerance degree : + 4.0 Control lever difference Grad : 17.0 tolerance degree : + 6.0 Setting point w/out bumper spring Rated speed rpm : 500
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP	position degree : 74.0 tolerance degree : + 4.0 Control lever difference Grad : 17.0 tolerance degree : + 6.0 Setting point w/out bumper spring Rated speed rpm : 500 rack travel mm : 4.30
position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 2.50 FULL LOAD DELIVERY AT FULL LOAD STOP	position degree : 74.0 tolerance degree : + 4.0 Control lever difference Grad : 17.0 tolerance degree : + 6.0 Setting point w/out bumper spring Rated speed rpm : 500 rack travel mm : 4.30

CRT mm min.	: > 19.00
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 500 : 5.30 : + 0.10
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1000 : 11.95 : ← 0.05
Rated speed rpm	: 800
AMEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa	: 500 : 900
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: -
MEASUREMENT	
Rated speed rpm	: 500
Pressure hPa rack travel mma Tolerance mm	: 530 : 11.75 : ← 0.05
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure	: +
Rated speed rpm Del. quantity	: 800
cm3/1000 strokes Tolerance	: 98.0
cm3/1000 strokes Check tolerance	: + 1.0
cm3/1000s.	: +- 3.0

rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
LOW IDLE	
Rated speed rpm	: 500
Rack travel in mm Tolerance mm Dal. quantity	: 5.30 : + 0.10
cm3/1000 strokes Tolerance	: 18.5
cm3/1000 strokes Check tolerance	: +- 2.0
cm3/1000s. Spreed	: +- 4.5
Tolerance cm3/1000 strokes Check tolerance	: 3.5
cm3/1000s.	: 5.5

End of test specification sheet

Rated speed rpm : 100

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 11,11,97 : ISO 4113

Combination No. : F 002 A07 061

Injection pump

Pump designation : PES4A95D32D/3RS2927

EP type number : F 002 A10 017

Governor

Governer design: : RSV475...1100A2C941R

Governer no.

: F 002 A20 242

Cust. part No. : 3930143

Customer-spec. information

Customer : CDC

Motor

: 4BNA3.9

Power KW

: 54.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.2

Test oil inlet

temp. °C

40

Tolerance °C

: + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar :

2.0

Tolerance bar : + 0.1

Test nozzle holde assembly

: 1 688 901 101

Opening pressure

bar

: 208.5

Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x Length mm : ണ

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : ← 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 7.75 : + 0.50 Tolerance

Check

tolerance *NW

: +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 10.55

Tolerance mm : $\leftarrow 0.05$

K12

	rack travel mm : 4.00 Rated speed rpm : 1250
Rated speed rpm : 475	+ Tolerance 1/min : +- 15
Rack travel in mm : 4.60 Tolerance mm : + 0.10	Ī
Del. quantity cm3/1000 strokes : 13.5 Tolerance	LOW IDLE
cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 4.5	control lever position degree : 70.0
Spreed Tolerance	tolerance degree : + 4.0 Control lever difference
cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5	Grad : 22.0 tolerance degree : +- 6.0
	Setting point w/out bumper spring
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 475 rack travel mm : 4.10 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION	Raited speed rpm : 100
	CRT mm min. : > 19.00
control lever position degree : - 3 Rated speed rpm : 800	Testing:
Rack travel in mm: 0.50 Tolerance mm: + 0.20	Rated speed rpm : 475 rack travel mm : 4.60 Tolerance mm : + 0.10
governor spring pre-tension click setting x : 3.50	TORQUE CONTROL Rated speed rpm : 1100 rack travel mm : 10.55 Tolerance mm : + 0.05
CONTROL LEVER	Rated speed rpm : 600 rack travel mm : 10.55 Tolerance mm : + 0.20
control lever position degree : 92.0 tolerance degree : + 4.0	
RATED SPEED rack travel mm : 9.50 Rated speed rpm : 1175	FUEL DELIVERY CHARACTERISTICS
Tolerance 1/min : + 5	+ Anercid pressure + hPa : -
rack travel mm : 4.00 Rated speed rpm : 1240 Tolerance 1/min : +- 5	+ Rated speed rpm : 600 + Del. quantity + cm3/1000 strokes : 82.0
rack travel mm : 0.85 Tolerance mm : + 0.55	+ Tolerance + cm3/1000 strokes : +- 1.0 + Check tolerance
Rated speed rpm : 1350	- cm3/1000s. : +- 3.0 - Spreed

Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 6.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.50
Tolerance mm : + 0.50
Del. quantity
cm3/1000 strokes : 120.0
Tolerance
cm3/1000 strokes : + 10.0
Check tolerance

LOW IDLE

cm3/1000s.

Rated speed rpm : 475 Rack travel in mm: 4.60 Tolerance mm : +--0.10 Del. quantity cm3/1000 strokes : 13.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 : +-Spreed Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. 5.5

: +- 15.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 19.04.91 Test oil : ISO 4113

Combination No. : 0 403 466 123

Injection pump

Pump designation : PES6MW100/120RS1137

: -2

EP type number

: 0 413 406 180

Governor

Governer design. : RSV500...1250MW2A319

: -16

Governer no.

: 0 420 085 130

Cust. part No. : 3918357

Customer-spec. information

Customer : CUMPIINS

Motor

: 6 CTA-8.3 L

Power KW

: 171.0

TEST BENCH REQUIREMENTS

Test oil inlet

temp. °C

Tolerance °C

2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1 688 901 017

Opening pressure

bar

: 208.5

Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter: 6.0

x inside diameter: 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 31.0 Tolerance bar : +- 1.0

Prestroke mm 3.55 : +- 0.05 Tolerance nm

Check

tolerance mm : **←** 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.50

Check

tolerance *NW : **←** 0.75

BASIC SETTING

Del. quantity

cm3/1000 strokes : 132.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000S.

: **←** 3.0

Spreed

Tolerance

cm3/1000 strokes :

3.5

Check tolerance

cm3/1000s.

6.0

Rated speed rpm	: 500
Rack travel in mm	9.00
Tolerance mm	: + 0.10
Del. quantity cm3/1000 strokes	: 53.5
Tolerance	: 25.5
cm3/1000 strokes	: 2.0
Check tolerance	
cm3/1000s. Spreed	: +- 4.5
Tolerance	
cm3/1000 strokes	: 3.5
Check tolerance cm3/1000s.	: 5.5
UND 15000.	. 3.3
•	
(B) SETTING OF IN	JECTION PUMP
WITH GOVERNOR	
GUIDE SLEEVE POSI	TION
control lever	
	: - 3
position degree Rased speed rpm	: 800
Rack travel in mm Tolerance mm	: 0.65 : +- 0.35
rocci de loc um	. , 0.55
governor spring	
pre-tension	
click setting x	: 5.50
	·
FULL LOAD DELIVER	Y AT FULL LOAD STOP
Dated asset	. 1350
Rated speed rpm Aneroid pressure	: 1250
hPa	: -
Del. quantity	
cm3/1000 strokes	: 132.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance	
cm3/1000s.	: 3.0
Spreed	
Tolerance cm3/1000 strokes	: 3.5
Check tolerance	. 4.3
cm3/1000s.	: 6.0

control lever position degree tolerance degree	: 97.0 : + 4.0	
RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 11.60 : 1325 : + 5	
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1365 : +- 5	
rack travel mm Tolerance mm Rated speed rpm	: 1.00 : + 0.70 : 1550	
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1375 : +- 15	
LOW IDLE		
control lever position degree tolerance degree	: 65.0 : + 4.0	
Setting point w/o		
Rated speed rpm rack travel mm Tolerance mm	: 500 : 9.50 : + 0.10	
Rated speed rpm	: 100	
CRT am min.	: > 19.00	
Testing:		
Rated speed rpm rack travel mm Tolerance mm	: 500 : 9.00 : + G.10	
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 570 : + 30	
FUEL DELIVERY CHARACTERISTICS		

Aneroid pressure			
hPa	:	-	
Rated speed rpm	:	750	
Del. quantity			
cm3/1000 strokes	: '	125.0	
Tolerance			
cm3/1000 strokes	: +-	1.5	
Check tolerance			
cm3/1000s.	: +-	4.0	
Spreed			
Tolerance			
cm3/1000 strokes	:	5.0	
Check tolerance			
cm3/1000s.	:	7.0	

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.00 Tolerance mm : + 1.00 Del. quantity cm3/1000 strokes : 135.0 Tolerance cm3/1000 strokes : + 10.0 Check tolerance cm3/1000s. : + 13.0

LOW IDLE

Rated speed rpm 500 Rack travel in mm: 9.00 Tolerance mm 0.10 Del. quantity cm3/1000 strokes : 53.5 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s.4.5 Spreed Tolerance 3.5 cm3/1000 strokes : Check tolerance cm3/1000s.5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 30.10.97 Test oil : ISO 4113

Combination No. : F 000 409 005

Injection pump

Pump designation : PES6P110A720RS3389

EP type number : F 000 400 002

Governor

Governer design. : RQV300...1300PA1343K

Governer no. : F 000 420 500

Cust. part No. : 0280742402

Customer spec. information

Customer : MB8

Motor : CM366LA-EURO II

Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. %C : 40 Tolerance *G : 4— 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.3

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 015

Outside diameter: 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.15
Tolerance mm : + 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm: 21.00

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm : 14.00 Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 115.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance

cm3/1000s. : +- 4.0

Spreed

Tolerance +	Tolerance
cm3/1000 strokes : 4.0	cm3/1000 strokes : +- 1.0
CALCY TOOL SCHOKES . T.O	
Charle And annual	Check tolerance
Check tolerance	cm3/1000s. : +- 4.0
cm3/1000s. : 7.5	Spreed
+	Tolerance
1	cm3/1000 strokes : 4.0
1	Check tolerance
Rated speed rpm : 300	cm3/1000s. : 7.5
	. 7.9
Rack travel in mm: 5.60	
Tolerance and : + 0.20	
Del. quantity	CONTROL LEVER
	CONTROL LEVER
cm3/1000 strokes : 10.5	
Tolerance	control lever
cm3/1000 strokes : + 2.5	position degree : 108.0
Check tolerance +	tolerance degree : + 4.0
cn3/1000s. : +- 5.0	
Spreed	RATED SPEED
Tolerance	rack travel mm : 12.90
cm3/1000 strokes : 4.5	Rated speed rpm : 1340
Check tolerance	
cm3/1000s. : 7.5	Tolerance 1/min : +- 5
CRIS/ 19005 7.3 +	
Ť	rack travel mm : 4.00
†	Rated speed rpm : 1485
(B) SETTING OF INJECTION PUMP	Tolerance 1/min : +- 15
WITH GOVERNOR +	
+	rack travel mm : 0.50
	Tolerance ma : +- 0.50
GUIDE SLEEVE TRAVEL	Rated speed rpm : 1600
Rated speed rpm : 1356	
guide sleeve	
travel mm : 9.19	
Tolerance mm : + 0.15	LOW IDLE
Toterance min . T U.I.	FOM TOPE
Batad award was a 700	
Rated speed rom : 300	
guide steeve	control lever
travel mm : 1.45	position degree : 66.0
Tolerance ma : + 0.20 +	tolerance degree : +- 4.0
+	
Rated speed rpm : 910 +	Setting point w/out bumper spring
guide sleeve	
travel mm : 5.70 +	Rated speed rpm : 200
Tolerance ma : + 0.25	,
1	CRT mm min. : > 7.00
Rated speed rpm : 1710	
guide sleeve	Testing:
travel mm : 13.50	resumg.
	Dated and days 200
Tolerance mm : + 0.50	Rated speed rpm : 300
†	rack travel mm : 5.60
	Tolerance mm : $+$ 0.20
FULL LOAD DELIVERY AT FULL LOAD STOP	
+	Rated speed rpm : 425
Rated speed rpm : 1300 +	
Aneroid pressure	
hPa : 1000	TORQUE CONTROL
Del. quantity	Rated speed rpm : 1300
cm3/1000 strokes : 115.0	rack travel mm : 14.00
	Tolerance mm : + 0.05
т	TOCCTORICE IMIT . ' U.U.

Rated speed rpm rack travel mm Rated speed rpm rack travel mm Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST	: 13.00 : + 0.05	Aneroid pressure hPa : 1000 Rated speed rpm : 780 rack travel mm : 13.25 Tolerance mm : + 0.05 Del. quantity cm3/1000 strokes : 94.5 Tolerance cm3/1000 strokes : + 2.0 Check tolerance cm3/1000s. : + 5.0
SETTING	‡	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 1000 : 13.00	Aneroid pressure hPa : - Fated speed rpm : 500 Del. quantity cm3/1000 strokes : 39.0
Rated speed rpm Pressure hPa	1	Tolerance cm3/1000 strokes : + 1.0
MEASUREMENT	<u> </u>	Check tolerance cm3/1000s. : + 4.0 spreed
Rated speed rpm	: 500	Tolerance cm3/1000 strokes : 4.0
Pressure hPa rack travel mm Tolerance mm	: 0.70	Check tolerance : 7.5
Pressure hPa rack travel mm Tolerance mm	: 2.00	STARTING FUEL DELIVERY Rated speed rpm : 100 rack travel mm : 20.00
Start interlock	<u> </u>	Tolerance mm : +- 1.00 Del. quantity cm3/1000 strokes : 84.5
Rated speed rpm Rated speed rpm		Tolerance cm3/1000 strokes : +- 10.0 Check tolerance
Check speed 1/min Check speed 1/min	+	cm3/1000s. : +- 14.0
	‡	LOW IDLE
FUEL DELIVERY CHA	RACTERISTICS	Rated speed rpm : 300
Aneroid pressure hPa Rated speed rpm	: 1000 : 600	Rack travel in mm: 5.60 Tolerance mm: + 0.20 Del. quantity
Del. quantity cm3/1000 strokes Tolerance	: 90.0	cm3/1000 strokes : 10.5 Tolerance cm3/1000 strokes : +- 2.5
cm3/1000 strokes Check tolerance		Check tolerance cm3/1000s. : +- 5.0 Spreed

Tolerance cm3/1000 strokes : 4.5 Check tolerance cm3/1000s. : 7.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 04.11.97 Test oil : ISO 4113

Combination No. : 0 400 876 437

Injection pump

Pump designation : PES6A95D32ORS2806 EP type number : 0 410 896 898

Governor

Governer design. : RSV375...1125AUC900R

Governer no. : 0 420 233 353

Cust. part No. : 8368 54720

Customer—spec. information Customer : SISU Motor : 620D Power KW : 88.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Ourtside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

tolerance mm

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.55
Tolerance mm : + 0.05
Check

Rack travel in mm : 10.50

Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: **←** 0.10

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Beginning of delivery differende

Difference * CS : 5.00

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm : 9.05 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 74.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000s. : +- 3.0	+ Check tolerance cm3/1000s. : + 3.0
Spreed	+ Spreed + Tolerance
	cm3/1000 strokes : 3.5
Tolerance	+ Check tolerance
cm3/1000 strokes : 3.5	
Check tolerance	<u> </u>
cm3/1000s. : 8.0	
	CONTROL LEVER
	T control Lever
Rated speed rpm : 375	position degree : 90.0
	tolerance degree : +- 4.0
Rack travel in mm: 4.00	DATES ADDES
Tolerance mm : - 0.10 Del. quantity	RATED SPEED
cm3/1000 strokes : 14.0	rack travel mm : 8.00 Rated speed rpm : 1145
Tolerance	Tolerance 1/min : + 5
cm3/1000 strokes : + 2.0	+
Check tolerance	rack travel mm : 4.00
cm3/1000s. : → 4.5	+ Rated speed rpm : 1195
Spreed	† Tolerance 1/min : + 15
Tolerance cm3/1000 strokes : 5.5	mack through me
Check tolerance	+ rack travel mm : 0.85 + Tolerance mm : + 0.55
ca3/1900s. : 9.0	Rated speed rpm: 1350
	+
	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1200
WITH GOVERNOR	† Tolerance 1/min : + 15
	
CUIDE OF FOUR POSTERON	+
GUIDE SLEEVE POSITION	LOW IDLE
	+
control lever	+
position degree : - 3	+ control lever
Rated speed rpm : 800	position degree : 71.0
Rack travel in mm : 0.50	tolerance degree : + 4.0
Tolerance mm : ← 0.20	- Setting point w/cut bumper spring
•	+
governor spring	Rated speed rpm : 375
pre-tension	rack travel mm : 3.50
click setting $x : 4.00$	Tolerance mm : + 0.10
	Rated speed rpm : 100
FULL LOAD DELIVERY AT FULL LOAD STOP	+
	+ CRT mm min. :> 19.50
Rated speed rpm : 1100	† Tooting.
Aneroid pressure hPa : -	† Testing:
Del. quantity	Rated speed rpm : 375
cm3/1000 strokes : 74.0	
Tolerance	+ rack travel mm : 4.00 + Tolerance mm : +- 0.10
	(
cm3/1000 strokes : + 1.0	rack travel mm : 2.00

Rated speed rpm	: 455
Tolerance 1/min	: ← 30
TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: 1100 : 9.05 : + 0.05
Rated speed rpm	: 500
rack travel mm	: 9.35
Tolerance mm	: ← 0.05
Rated speed rpm	980
rack travel mm	9.00
Tolerance mm	+ 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure			
hPa	:	-	
Rated speed rpm	:	500	
Del. quantity			
cm3/1000 strokes	•	58.5	
Tolerance			
cm3/1000 strokes	: +-	2.0	
Check tolerance			
cm3/1000s.	: +-	4.0	
	-		

STARTING FUEL DELIVERY

Rated speed rpm rack travel mm	:		100 20.25
Tolerance mm	:	+-	0.75
Del. quantity cm3/1000 strokes	:		200.0
Tolerance	•		
cm3/1000 strokes	•	4	8.0
Check tolerance cm3/1000s.	:	+-	11.0

LOW IDLE

Rated speed rpm	:	375
Rack travel in mm Tolerance mma Del. quantity	: : ←	4.00 0.10
cm3/1000 strokes Tolerance	:	14.0
cm3/1000 strokes	: +-	2.0

Check tolerance cm3/1000s. Spreed	: +-	4.5
Tolerance cm3/1000 strokes Check tolerance	:	5.5
cm3/1000s.	:	9.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microsant(s) W400/...

Edition Test oil

: 26.11.97 : ISO 4113

Combination No. : F 002 A0Z 057

Injection pump

Pump designation: PES4A95D320/3RS2927

EP type number : F 002 A10 017

Governor

Governer design. : RSV475...1250AOC936R

60verner no. : F 002 A20 241

Cust. part No. : 3930145

Customer-spec. information

Customer : CDC

Motor Power KW : 4BNA3.9 : 59.7

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temo. °C

40

Tolerance °C

2.0

Overflow valve : 2 417 413 093

Inlet press. bar :

2.0

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

Tolerance bar : + 1.5

Test Lines : 1 680 750 014

Outside diameter: 6.0

K25

x inside diameter: 2.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0

Tolerance bar : + 1.0

Prestroke mm : 2.85
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance ÷ + 0.50

Check

tolerance °NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 10.25

Tolerance : +- 0.50

Check

tolerance "NW : +- 0.75

: 1 Barrel no.

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 10.20

Tolerance mm : + 0.05

	Del. quantity cm3/1000 strokes	. 92.0	†	Aneroid p hPa Del. quan
		. 72.0	Į	cm3/1000:
	Tolerance cm3/1000 strokes		+	Tolerance
	CHO/ IUUU Strokes	: +- 1.0	1	cm3/1000 :
	Check tolerance		· +	cm3/1000s
	cm3/1000s.	: + 3.0	†	Spreed Tolerance
	Spreed		Ţ	cm3/1000
	T alas		+	Check tol
	Tolerance cm3/1000 strokes	: 3.5	1	cm3/1000s
	The record of the record	. 5.5		
	Check tolerance		+	and transition
	cm3/1000s.	: 6.0	1	CONTROL LI
			+	control le
	Rated speed rpm	: 475	†	position of tolerance
	nated Speed (pin	. 473	Į	toterance
	Rack travel in ma		+	RATED SPE
	Tolerance mm Del. quantity	: + 0.10	t	rack trave
	cm3/1000 strokes	: 13.5	Ţ	Tolerance
	Tolerance		+	
	cm3/1000 strokes Check tolerance	: + 2.0	1	rack trave
	cm3/1000s.	: + 4.5	Ţ	naceu spei
	Spreed		+	rack trave
	Tolerance cm3/1000 strokes	: 3.5	1	Tolerance Rated spec
	Check tolerance		+	•
	cm3/1000s.	: 5.5	†	rack trave
			Į	Rated spec Tolerance
	(B) SETTING OF INJ	ECTION PUMP	+	
	WITH GOVERNOR		İ	
			+	
	GUIDE SLEEVE POSIT	TON	+	LOW IDLE
,	GOINE STEENE MOSTI	TOM	I	
			+	control le
	control lever position degree	7	İ	position of tolerance
	Rated speed rpm	: 800	Ţ	to ter ance
		0 50	+	Control Le
	Rack travel in mm Tolerance mm	: 0.50 : + 0.20	İ	Grad tolerance
	. O COI GO TOO HEH	0.20	Ţ	
	governor spring		+	Setting po
	ore-tension click setting x	: 3.50	1	Rated spec
			+	rack trave
•	FILL LOAD DELTHERY	AT FULL LOAD STOP	ţ	Tolerance
	OUL LOND DELIVERY	AT FULL LUAD STUP	Į	Rated spec

Aneroid pressure hPa Del. quantity	: -
cm3/1000 strokes Tolerance	: 92.0
cm3/1000 strokes Check tolerance	: + 1.0
cm3/1000s. Spreed	: + 3.0
Tolerance cm3/1000 strokes Check tolerance	: 3.5
cm3/1000s.	: 6.0
CONTROL LEVER	
control lever position degree tolerance degree	: 91.0 : + 4.0
RATED SPEED rack travel mma Rated speed rpm Tolerance 1/min	: 9.20 : 1320 : + 5
rack travel mm Rated speed rpm	: 4.00 : 1380
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 1450
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1385 : + 15

control lever
position degree : 70.0
tolerance degree : + 4.0

Control lever difference
Grad : 21.0
tolerance degree : + 6.0

Setting point w/out bumper spring

Rated speed rpm : 475
rack travel mm : 4.10
Tolerance mm : + 0.10

Rated speed rpm : 100

Rated speed rpm : 1250

CRT mm min. : > 19.00

Testing:

Rated speed rpm : 475 rack travel mm : 4.60 : + 0.10 Tolerance man

TORQUE CONTROL

Rated speed rpm : 1250 rack travel mm : 10.20 : + 0.05Tolerance mm

Ratted speed rpm : 600

STARTING FUEL DELIVERY

Rated speed rpm : 100 : 20.50 rack travel mm : + 0.50Tolerance mm Del. quantity cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

: **←** 15.0 cm3/1000S.

LOW IDLE

Rated speed rpm : 475

Rack travel in mm: 4.60 Tolerance mm : **←** 0.10

Del. quantity

cm3/1000 strokes : 13.5

Tolerance

Check tolerance

cm3/1000 strokes : +-

2.0

cm3/1000s. : **←** 4.5 Spreed

Tolerance

3.5 cm3/1000 strokes :

Check tolerance

5.5 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

: 26.11.97 Edition Test oil : ISO 4113

Combination No. : F 002 A0Z 061

Injection pump

Pump designation : PES4A95D320/3RS2927

EP type number : F 002 A10 017

Governor

Governer design. : RSV475...1100A2c941R

Governer no. : F 002 A20 242

Cust. part No. : 3930143

Customer-spec. information Customer : CDC Motor : 4BNA3.9 Power KW : 54.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 bar Tolerance bar $: \leftarrow 1.5$

Test Lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

Prestroke mm : 2.85 : ← 0.05 Tolerance mm Check

tolerance mm : ← 0.10

Rack travel in mm : 10.50 Tolerance mm : +- 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance

: +- 0.50

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 9.50 : +- 0.50

Tolerance Check

tolerance *NW : **←** 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 10.55

K28

Tolerance num : + 0.05	rack travel mm : 4.00 Rated speed rpm : 1250
Rated speed rpm : 475	Tolerance 1/min : +- 15
Rack travel in mm: 4.60 Tolerance mm: : + 0.10 Del. quantity cm3/1000 strokes: 13.5	LOW IDLE
Tolerance cm3/1000 strokes : +- 2.0 Check tolerance cm3/1000s. : +- 4.5 Spreed	control lever position degree : 70.0 tolerance degree : + 4.0
Tolerance cm3/1000 strokes : 3.5 Check tolerance cm3/1000s. : 5.5	Control lever difference Grad: 22.0 tolerance degree: + 6.0 Setting point w/out bumper spring
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 475 rack travel mm : 4.10 Tolerance mm : +- 0.10
GUIDE SLEEVE POSITION	Rated speed rpm : 100
control lever position degree : - 3 Rated speed rpm : 800	CRT mm min. : > 19.00 Testing: Rated speed rpm : 475
Rack travel in mm: 0.50 Tolerance mm: : + 0.20	rack travel mm : 4.60 Tolerance mm : +- 0.10
governor spring pre-tension click setting x : 3.50	TORQUE CONTROL Rated speed rpm : 1100 rack travel mm : 10.55 Tolerance mm : + 0.05
CONTROL LEVER control Lever	Raited speed rpm : 600 rack travel mm : 10.55 Tolerance mm : + 0.20
position degree : 92.0 tolerance degree : + 4.0	
RATED SPEED reck travel mm : 9.50 Rated speed rpm : 1175	FUEL DELIVERY CHARACTERISTICS
Tolerance 1/min : + 5 rack travel mm : 4.00 Rated speed rpm : 1240	Aneroid pressure hPa : - Rated speed rpm : 600 Del. quantity
Tolerance 1/min : +- 5 - rack travel mm : 0.85 - Tolerance mm : +- 0.55 -	cm3/1000 strokes : 82.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance
Rated speed rpm : 1350	cm3/1000s. : +- 3.0

Spreed

Tolerance cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 6.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50

Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : + 15.0

LOW IDLE

Rated speed rpm : 475

Rack travel in mm: 4.60
Tolerance mm: + 0.10
Del. quantity
cm3/1000 strokes: 13.5
Tolerance
cm3/1000 strokes: + 2.0
Check tolerance
cm3/1000s: + 4.5

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 26,11,97 : ISO 4113

Combination No. : F 002 ADZ 062

Injection pump

Pump designation : PES4A95D32D/3RS2927

EP type number : F 002 A10 017

Governor

Governer design. : RSV475...1100A2c942R

Governer no.

: F 002 A20 243

Cust. part No. : 3930142

Customer-spec. information

Customer : CDC

Motor

: 4BNA3.9

Power KW

: 50.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.2

Test oil inlet

temp. °C

40

Tolerance °C

: +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

: 208.5

Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0

Tolerance bar : + 1.0

2.35

Prestroke mm : +-: +- 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : \leftarrow 1.50

Firing order : 1-3-4-2

Pnasing : 0-90-180-270

Tolerance : **←** 0.50

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 9.00

: **←** 0.50 Tolerance

Check

tolerance *NW : **←** 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 9.00

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 81.0	Aneroid pressure hPa : - Del. quantity
Tolerance cm3/1000 strokes : + 1.0	cm3/1000 strokes : 81.0 Tolerance
Check tolerance	cm3/1000 strokes : +- 1.0 Check tolerance
cm3/1000s. : + 3.0	cm3/1000s. : +- 3.0 Spreed Tolerance
+	cm3/1000 strokes : 3.5
Tolerance cm3/1000 strokes : 3.5	Check tolerance cm3/1000S. : 6.0
Check tolerance cm3/1000s. : 6.0	
 ‡	CONTROL LEVER
Rated speed rpm : 475	control lever position degree : 89.0
Rack travel in mm: 5.10	tolerance degree : +- 4.0
Tolerance mma : + 0.10	RATED SPEED
Del. quantity + cm3/1000 strokes : 13.5 +	rack travel mma : 8.20 Rated speed rpm : 1175
Tolerance	Tolerance 1/min : + 5
cm3/1000 strokes : + 2.0 + Check tolerance	and though my
cm3/1000s. : +- 4.5	rack travel mm : 4.00 Rated speed rpm : 1240
Spreed	·
Tolerance + cm3/1000 strokes : 3.5 +	rack travel mm : 0.85 Tolerance mm : +- 0.55
Check tolerance	Rated speed rpm : 1350
cm3/1000s. : 5.5	modulational and / OO
İ	rack travel mm : 4.00 Rated speed rpm : 1245
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Tolerance 1/min : + 15
GUIDE SLEEVE POSITION	LOW IDLE
control lever	control lever
position degree : -3	position degree : 74.0
Rated speed rpm : 800	tolerance degree : +- 4.0
Rack travel in mm: 0.50	Control lever difference
Tolerance mm : + 0.20	Grad : 15.0
governor spring	tolerance degree : +- 6.0
pre-tension +	Setting point w/out bumper spring
click setting x : 4.50	Rated speed rpm : 475
	rack travel mm : 4.60
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : + 0.10
Rated speed rpm : 1100	Rated speed rpm : 100

CRT man min. : > 19.00

Testing:

Rated speed rpm 475 rack travel mm 5.10 Tolerance mm : + 0.10

TORQUE CONTROL

Rated speed rpm 1100 rack travel mm 9.0C Tolerance mm : **+-** 0.05

Rated speed rpm 600 rack travel mm 9.70 : + 0.10Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 600

Del. quantity

cm3/1000 strokes : £0.9 Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. : +-4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 : +- 0.50 Tolerance mm

Del. quantity cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : +- 10.0

Check tolerance

cm3/1000s. : +- 15.0

LOW IDLE

Rated speed rpm : 475

Rack travel in mm: 5.10 Tolerance mm : + 0.10

Del. quantity

cm3/1000 strokes : 13.5 Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s.4.5

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 26.11.97 : ISO 4113

Combination No.

: F 002 A0Z 063

Injection pump

Pump designation : PES4A95D32D/3RS2927

EP type number : F 002 A10 017

Covernor

Governer design. : RSV475...1100A2C943R

Governer no.

: F 002 A20 244

Cust. part No. : 3931397

Customer-spec. information

Customer : CDC : 4BNA3.9 Motor

Fower KW

: 45.0

TEST BENCH REQUIREMENTS

Inlet line

: 3.2

Test oil inlet

temp. °C

Tolerance °C

Overflow valve

: 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : ← 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

208.5

Tolerance bar

: **←** 1.5

Test lines : 1 680 750 014

Outside diameter :

6.0

REMARKS

2.0

600

x inside diameter :

x Length mm ;

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: 17.0

Tolerance bar : + 1.0

Prestroke mm 2.85 Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm: +- 1.50

Firing order : 1-3-4-2

Phasing : 0-90-180-270 Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 8.75 : + - 0.50Tolerance

Check

tolerance °NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 8.20

Tolerance mm : + 0.05

L06

Del. quantity + cm3/1000 strokes : 75.0	Aneroid pressure hPa : -
Tolerance	Del. quantity cm3/1000 strokes : 75.0 Tolerance
Check tolerance	cm3/1000 strokes : + 1.0 Check tolerance
cm3/1000s. : ← 3.0 + 3.0 + 3.0	cm3/1000s. : +- 3.0 Spreed Tolerance
Tolerance	cm3/1000 strokes : 3.5 Check tolerance
cm3/1000 strokes : 3.5 Check tolerance	cm3/1000s. : 6.0
cm3/1000s. : 6.0	CONTROL LEVER
Rated speed rpm : 475	control lever position degree : 88.0
· · · · ·	tolerance degree : + 4.0
Rack travel in mm: 4.60	DATES ORGES
Tolerance mm : +- 0.10 +- Del. quantity +-	RATED SPEED 7.20
cm3/1000 strokes : 13.5	Rated speed rpm : 1175
Tolerance	Tolerance 1/min : +- 5
cm3/1000 strokes : + 2.0	
Check tolerance + 4.5	rack travel mm : 4.00 Rated speed rpm : 1215
Spreed	Tolerance 1/min : + 5
Tolerance	
cm3/1000 strokes : 3.5	rack travel mm : 0.85
Check tolerance + cm3/1000s. : 5.5	Tolerance mm : + 0.55
cm3/1000s. : 5.5	Rated speed rpm : 1300
1	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1215
WITH GOVERNOR	Tolerance 1/min : + 15
<u> </u>	
GUIDE SLEEVE POSITION	
‡	LOW IDLE
control lever	andral lavar
position degree : -3 Rated speed rpm : 800	control lever position degree : 73.0
Tured speed (pill) july	tolerance degree : + 4.0
Rack travel in mm: 0.50	
Tolerance mm : + 0.20	Control lever difference
GOVORNO GORGO	Grad : 15.0
governor spring + pre-tension +	tolerance degree : +- 6.0
click setting x : 2.75	Setting point w/out bumper spring
+	Rated speed rpm : 475
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 4.10
Rated speed rpm : 1100	Tolerance mm : +- 0.10
Rated speed rpm : 1100	Rated speed rpm : 100

CRT mme min. : > 19.00

Testing:

Rated speed rpm : 475
rack travel mm : 4.60
Tolerance mm : + 0.10

TORQUE CONTROL

Rated speed rpm : 1100 rack travel mm : 8.20 Tolerance mm : + 0.05

Rated speed rpm : 600 rack travel mm : 9.20 Tolerance mm : + 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 600

Del. quantity

cm3/1000 strokes : 69.5

Tolerance

cm3/1000 strokes : \leftarrow 2.0

Check tolerance

cm3/1000s. : \leftarrow 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 Tolerance mm : + 0.50

Del. quantity

cm3/1000 strokes : 120.0

Tolerance

cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : +- 15.0

LOW IDLE

Rated speed rpm : 475

Rack travel in mm: 4.60 Tolerance mm: +- 0.10

Del. quantity

cm3/1000 strokes : 13.5

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s. : +- 4.5

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. : 5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 26.11.97 : ISO 4113

Combination No. : F 002 A0Z 064

Injection pump

Pump designation : PES4A95D32O/3RS2927.

EP type number : F 002 A10 017

Governor

Governer design. : RSV475...1000A2C944R

Governer no. : F 002 A20 245

Cust. part No. : 3933090

Customer-spec. information

Customer : CDC

Motor

: 4BNA3.9

Power KW

: 40.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C

Toterance *C

: +- 2.0

Overflow valve : 2 417 413 093

Inlet press. bar :

2.0

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

208.5

Tolerance bar

: **←** 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 17.0

Tolerance bar : + 1.0

2.85

Prestroke mm : +-: +- 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 10.50

Tolerance mm : + 1.50

Firing order : 1-3-4-2

: 0-90-180-270 Phasing

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 8.25

: +- 0.50 Tolerance

Check

tolerance *NW

: + 0.75

Barrel no.

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 8.05

Tolerance mm : + 0.05

L09

Del. quantity +	Aneroid pressure
cm3/1000 strokes : 70.5	hPa : - Del. quantity
Tolerance	cm3/1000 strokes : 70.5
cm3/1000 strokes : + 1.0	Tolerance cm3/1000 strokes : +- 1.0
Check tolerance $\frac{1}{3.0}$ cm3/1000s. $\frac{1}{3.0}$	Check tolerance cm3/1000s. : +- 3.0
Spreed	Spreed Tolerance
Tolerance	cm3/1000 strokes : 3.5
cn3/1000 strokes : 3.5	Check tolerance cm3/1000s. : 6.0
Check tolerance	
cm3/1000s. : 6.0	CONTROL LEVER
‡	control lever
Rated speed rpm : 475	position degree : 87.0
†	tolerance degree : +- 4.0
Rack travel in mm: 4.75	2477
Tolerance mm : + 0.10	RATED SPEED
Del. quartity + cm3/1000 strokes : 13.5 +	rack travel mm : 7.00
Tolerance	Rated speed rpm : 1070 Tolerance 1/min : +- 5
cm3/1000 strokes : +- 2.0	Totalite Milli . +- 3
Check tolerance	rack travel mm : 4.00
c763/1000s. : - 4.5	Rated speed rpm : 1090
Spreed	Tolerance 1/min : + 5
Tolerance	
cm3/1000 strokes : 3.5	rack travel mm : 0.85
Check tolerance +	Tolerance mm : +- 0.55
cm3/1000s. : 5.5	Rated speed rpm : 1175
1	rack travel mm : 4.00
(B) SETTING OF INJECTION PUMP	Rated speed rpm : 1090
WITH GOVERNOR	Tolerance 1/min : +- 15
<u> </u>	
GUIDE SLEEVE POSITION	
1	LOW IDLE
control lever	
position degree : - 3	control lever
Rated speed rpm : 800	position degree : 69.0
+	tolerance degree : +- 4.0
Rack travel in mm: 0.50	
Tolerance mm : + 0.20	Control lever difference
	Grad : 18.0
governor spring	tolerance degree : +- 6.0
pre-tension + click setting x : 3.75 +	Setting point Wout human anning
t secting x . S.15	Setting point w/out bumper spring
FILL LOAD DELTHERY AT FILL LOAD CTOD	Rated speed rpm : 475
FULL LOAD DELIVERY AT FULL LOAD STOP	rack travel mm : 4.25
Ratted speed rpm : 1000	Tolerance mm : + 0.10
nated speed (hill a 1000	Rated speed rpm : 100

CRT mm min. : > 19.00

Testing:

Rated speed rom 475 : rack travel mm : 4.75 Tolerance mm : **←** 0.10

TORQUE CONTROL

1000 Rated speed rpm : rack travel mm 8.05 Tolerance ma : +- 0.05

Rated speed rpm : 600 9.15 rack travel mm : + 0.10 To berence min

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 600

Del. quantity cm3/1000 strokes : 67.0 Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s. 4.0

STARTING FUEL DELIVERY

100 Rated speed rpm : rack travel mm : 20.50 Tolerance mm : **←** 0.50

Del. quantity

cm3/1000 strokes : 120.0

Tolerence

cm3/1000 strokes : \leftarrow 10.0

Check tolerance

: +- 15.0 cm3/1000s.

LOW IDLE

Rated speed rpm : 475

Rack travel in mm: 4.75 Tolerance mm : **←** 0.10

Del. quantity

cm3/1000 strokes : 13.5 Tolerance

cm3/1000 strokes : +-2.0

Check tolerance

cm3/1000s.4.5

Spreed Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s. 5.5

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 18.11.97 Test oil : ISO 4113

Combination No. : 0 400 463 115

Injection pump

Pump designation : PES3A80D320/3RS1299 EP type number : 0 410 483 015

Governor

Governer design. : RSV325...1500A2C505R

Governer no. : 0 420 233 187

Cust. part No. :

Customer—spec. information Customer : MWM Motor : \$\text{\$\text{\$\text{\$}}\ceps{226-3}\$}\$

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : 1.0

Test nozzle holde

assembly : 0 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter: 2.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 2.25
Tolerance mm : + 0.05

Check

tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 1- 2- 3

Phasing : 0-120-240
Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Del. quantity cm3/1000 strokes : 48.5

Tolerance

cm3/1000 strokes : \leftarrow 0.5

Check tolerance

cm3/1000s. : +- 2.0

Spreed

Tolerance

cm3/1000s.

cm3/1000 strokes : 2.5

Check tolerance

: 4.0

Rated speed rpm : 325

Rack travel in mm Tolerance mm	: : +-	7.00 0.10
Del. quantity cm3/1000 strokes Tolerance	:	12.0
cm3/1000 strokes Check tolerance	: +-	3.0
cm3/1000s. Spreed	: +-	4.5
Tolerance cm3/1000 strokes	:	2.0
Check tolerance cm3/1000s.	:	3.5

(B) SETTING OF INJECTION PUMP WITH GOVERNOR

GUIDE SLEEVE POSITION

control lever position degree : - 3 Rated speed rpm : 800

Rack travel in mm : 0.65
Tolerance mm : + 0.35

governor spring pre-tension

click setting x: 4.00

FULL LOAD DELIVERY AT FULL LOAD STOP

Rated speed rpm : 1480 Aneroid pressure hPa Del. quantity cm3/1000 strokes : 48.5 Tolerance cm3/1000 strokes : +-0.5 Check tolerance cm3/10000S. 2.0 : +-Spreed Tolerance 2.5 cm3/1000 strokes : Check tolerance cm3/1000s. 4.0

CONTROL LEVER

control lever position degree

position degree : 108.0 tolerance degree : \leftarrow 4.0

RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 8.00 : 1525 : + 5
rack travel mm	: 4.00
Rated speed rpm	: 1560
Tolerance 1/min	: + 15
rack travel mm	: 1.00
Tolerance mm	: + 0.70
Rated speed rpm	: 1720
rack travel mm	: 4.00
Rated speed rpm	: 1570

Tolerance 1/min : +- 15

LOW IDLE

control lever position degree : 70.0

tolerance degree : +- 4.0

Setting point w/out bumper spring

Rated speed rpm : 325 rack travel mm : 7.50 Tolerance mm : + 0.10

Rated speed rpm : 100

CRT mm min. :> 19.50

Testing:

Rated speed rpm : 325 rack travel mm : 7.00 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 485
Tolerance 1/min : ← 30

Start interlock

Rated speed rpm : > 100

Check

speed 1/min :> 80

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.25 Tolerance mm : + 0.75 Del. quantity cm3/1000 strokes : 93.5

Tolerance cm3/1000 strokes : + 8.0

Check tolerance

cm3/1000s. : + 11.0

LOW IDLE

Rated speed rpm : 325

Rack travel in mm : 7.00
Tolerance mm : +- 0.10
Del. quantity
cm3/1000 strokes : 12.0
Tolerance

cm3/1000 strokes : + 3.0 Check tolerance

cm3/1000s. : + 4.5

Tolerance

cm3/1000 strokes : 2.0 Check tolerance cm3/1000s. : 3.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 20.11.97 Test oil : ISO 4113

Combination No. : F 002 A0Z 035

Injection pump

Pump designation : PES4A95D320/3RS288Q

5P type number : 9 410 037 214

Governor

Governer design. : RSV475...1050ADC913R

6overner no. : F 002 A20 225

Cust. part No. : DEP: 3283693

Customer-spec. information

Motor : CLMMINS-48TA-3.9 Power KW : 77.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet : 40 : + 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0

Tolerance bar : + 1.0

Prestroke mm : 2.45
Tolerance mm : + 0.05

Check

: +- 0.10 tolerance mm

Rack travel in mm: 10.50

Tolerance mm : +- 1.50

Firing order : 1-3-4-2

: 0-90-180-270 Phasing

Tolerance

Check

tolerance *NW : **←** 0.75

Start of delivery blocking

*NW after s.o.d. : 6.50 Tolerance : + 0.10

Check

tolerance *NW : + 0.29

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 13.60

Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes : 118.5	Aneroid pressure hPa : 1000
Tolerance	Del. quantity cm3/1000 strokes : 118.5 Tolerance
Check tolerance cm3/1000s. : + 3.0	<pre>cm3/1000 strokes : +- 1.0 Check tolerance cm3/1000s. : +- 3.0</pre>
Spreed	Spreed Tolerance
Tolerance cm3/1000 strokes : 4.0	cm3/1000 strokes : 4.0 Check tolerance cm3/1000s. : 6.5
Check tolerance cm3/1000s. : 6.5	
	CONTROL LEVER
Rated speed rpm : 475	control lever position degree : 93.0 tolerance degree : +- 4.0
Rack travel in mm: 5.35 Tolerance mm: + 0.10 Del. quantity	RATED SPEED rack travel mm : 12.60
cm3/1000 strokes : 14.0 + Tolerance +	Rated speed rpm : 1100 Tolerance 1/min : + 5
cm3/1000 strokes : ← 2.0	rack travel mm : 5.90 Rated speed rpm : 1175
Spreed + Tolerance + cm3/1000 strokes : 6.0 +	Tolerance 1/min : +- 5 rack travel mm : 0.85
Check tolerance cm3/1060s. : 8.0	Tolerance mm : + 0.55 Rated speed rpm : 1300
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	rack travel mm : 5.90 Rated speed rpm : 1175 Tolerance 1/min : + 15
GUIDE SLEEVE POSITION	LOW IDLE
control lever position degree : FREE Rated speed rpm : 800	control lever position degree : 72.0 tolerance degree : +- 4.0
Rack travel in mm : 0.50 Tolerance mm : +- 0.20	Control Lever difference Grad : 21.0
governor spring pre-tension	tolerance degree : +- 6.0
click setting x : 3.50	Setting point w/out bumper spring
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 475 rack travel mm : 4.85 Tolerance mm : +- 0.10
Ratted speed rpm : 1050	Rated speed rpm : 100

CRT		min.	:	>	19.00
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Testing:

Rated speed rpm	:	475
rack travel mm	:	5.35
Tolerance mm	: +	- 0.10

rack travel mm	:	2.00
Rated speed rpm	:	550
Tolerance 1/min	: -	⊢ 30

TORQUE CONTROL	TORQUE	CONTROL
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Rated speed rp	.	1050
rack travel mm	:	13.60
Tolerance mm	:	+ 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm	:	500
Pressure hPa	:	1000

Rated speed rpm	:	<i>50</i> 0
Pressure hPa	:	-
rack travel mm	:	11.75
Tolerence mm	: +	-0.20

MEASUREMENT

Rated	cheed	PDM.	500
Karea	SURPRISO	CUM	 21 8 1

Pressure hPa	:	800
rack travel mm	:	12.95
Tolerance mm	: -	← 0.20

Pressure hPa	:		600
rack travel mm	:		12.25
Tolerance mm	:	+	0.20

FUEL DELIVERY CHARACTERISTICS

hPa	:	-
Rated speed rpm	:	5 0 0
Del. quantity		
cm3/1000 strokes	:	84.0
Tolerance		
cm3/1000 strokes	: +-	1.0
Check tolerance		

Check tolerance cm3/1000s. : + 3.0

STARTING FUEL DELIVERY

Tolerance mm	: 100 : 20.50 : + 0.50
Del. quantity cm3/1000 strokes Tolerance	: 121.5
cm3/1000 strokes Check tolerance cm3/1000s.	: + 10.0 : + 15.0
CMS/ 10003.	: +- 15.0

LOW IDLE

Rated speed rpm	:	475
Rack travel in mm Tolerance mm Del. quantity	: +	5.35 - 0.10
cm3/1000 strokes Tolerance	:	14.0
cm3/1900 strokes Check tolerance	: +-	2.0
cm3/1000s. Spreed Tolerance	: +	- 4.5
cm3/1000 strokes Check tolerance	:	6.0
cm3/1000s.	:	8.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 01.12.97 : ISO 4113

Combination No. : F 002 A07 079

Injection pump

Pump designation : PES4A95D12ORS2941 EP type number : F 002 A10 024

Governor

Governer design. : RQV475...1250AB1329R

Governer no.

: F 002 A30 004

Cust. part No. : 3933691

Customer-spec, information Customer : CDC

Motor

: 4BNA

Power KW : 59.6

TEST BENCH REQUEREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : +- 2.0

: 2 417 413 093 Overflow valve

Inlet press. bar : Tolerance bar : + 0.1

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar 208.5 Tolerance bar : **←** 1.5

Test lines : 1 680 750 014

Outside diameter : 6.0

x inside diameter : 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 17.0 Tolerance bar : + 1.0

: 2.85 Prestroke min : +- 0.05 Tolerance mm

Check

tolerance mm : **←** 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-3-4-2

Phasing : 0-90-186-276

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 10.25 Tolerance : + 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1250

Rack travel in mm: 10.00 : +- 0.05 Tolerance mm

Del. quantity

cm3/1000 strokes : 87.0

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Tolerance cm3/1000 strokes : + 1.0	<pre>guide sleeve travel mm : 11.50 Tolerance mm : + 0.50</pre>
Check tolerance cm3/1000s. : + 3.0	
Spreed	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes : 3.5	Rated speed rpm : 1250 Aneroid pressure hPa : - Del. quantity
Check tolerance cm3/1000s. : 6.0	cm3/1000 strokes : 87.0 Tolerance cm3/1000 strokes : + 1.0
Data dans dans (25	Check tolerance cm3/1090s. : + 3.0
Rated speed rpm : 475	Spreed Tolerance
Rack travel in mm : 5.35 Tolerance mm : + 0.10	cm3/1000 strokes : 3.5 Check tolerance
Del. quantity vm3/1000 strokes : 15.0 Tolerance	+ cm3/1000s. : 6.0
cm3/1000 strokes : +- 2.0 Check tolerance	CONTROL LEVER
cm3/1000s. : + 4.5 Spreed Tolerance	- control lever - position degree : 100.0
cm3/1000 strokes : 3.5 Check tolerance	tolerance degree : +- 6.0
cm3/1000s. : 5.5	RATED SPEED : 9.00
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Rated speed rpm : 1300 Tolerance 1/min : + 15
GUIDE SLEEVE TRAVEL	rack travel mm : 4.00 Rated speed rpm : 1390 Tolerance 1/min : + 5
Rated speed rpm : 1310	rack travel mm : 0.50
guide sleeve travel mm : 8.60	Tolerance mm : + 0.50 Rated speed rpm : 1475
Tolerance mma : + 0.15	
Rated speed rpm : 475 guide sleeve	
travel mm : 1.90 Tolerance mm : + 0.20	LOW IDLE
Rated speed rpm : 930 guide sleeve	control lever position degree : 70.0
travel mm : 5.25 Tolerance mm : + 0.25	tolerance degree : + 6.0
Rated speed rpm : 630 guide sleeve	+ Control lever difference + Grad : 30.0 + tolerance degree : +- 6.0
travel mm : 3.30 Tolerance mm : + 0.25	Setting point w/out bumper spring
Rated speed rpm : 1630	Rated speed rpm : 400

CRT mm min. :> 7.00

Testing:

Rated speed rpm 475 rack travel mm : 5.35 : + 0.10 Tolerance mm

Rated speed rpm 550

TORQUE CONTROL

Rated speed rpm : 1250 rack travel mm 10.00 : +- 0.05 Tolerance ma

Start interlock

Rated speed rpm :> 100 : < Rated speed rpm 385

Check

speed 1/min : > 80 Check

speed 1/min : < 395

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm : 20.50 : **←** 0.50 Tolerance mm

Del. quantity

cm3/1000 strokes : 120.0 Tolerance

cm3/1000 strokes : +- 10.0

Check tolerance

cm3/1000s. : + 15.0

LOW IDLE

Rated speed rpm : 475

Rack travel in mm : 5.35 Tolerance mm : ← 0.10

Del. quantity

cm3/1000 strokes : 15.0

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

: +-cm3/1000S. 4.5

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance

cm3/1000s.5.5

End of test specification sheet

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Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 28.11.97 Test oil : ISO 4113

Combination No. : 0 401 846 993

Injection pump

Funda designation : PE6P11DA72ORS3348
EP type number : 0 411 816 797

Governor

Governer design. : RQV250...1200PA413

: -8

Governer no. : 0 421 814 147

Cust. part No. : 612.60.08.0217

Customer—spec. information Customer : SNF Motor : WD612.36 Power KW : 135.0

TEST BENCH REQUIREMENTS

Inlet line : 4.2

Test oil inlet

temp. °C : 40 Tolerance °C : + 2.0

Overflow valve : 1 457 413 010

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 210 Tolerance l/h : + 10.0

Test nozzle holde

assembly : 1 681 343 009

Opening pressure

bar : 173.5 Tolerance bar : + 1.5 Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 4.65
Tolerance mm : + 0.50
Check
tolerance mm : + 0.10

Rack travel in mm : 14.30 Tolerance mm : + 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1200

Rack travel in mm: 14.30 Tolerance mm: + 0.05

Del. quantity

cm3/1000 strokes : 145.0

Tolerance -	guide sleeve
cm3/1000 strokes : + 1.0	travel mm : 10.00 Tolerance mm : + 0.25
Check tolerance cm3/1000s. : + 4.0	Rated speed rpm : 1570
Spreed	guide sleeve - travel mm : 11.50 - Tolerance mm : +- 0.50
Tolerance - cm3/1000 strokes : 4.0 -	Total alice min
Check tolerance	GUIDE SLEEVE POSITION
cm3/1000s. : 7.5	- control lever
	- position degree : - 1 - Rated speed rpm : 1590
Rated speed rpm : 250	- Rack travel in mm : 12.80
Rack travel in mm : 5.00	Tolerance mm : +- 1.30
Tolerance mm : +- 0.10 Del. quantity	
cm3/1000 strokes : 12.0 -	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : + 3.0	- Rated speed rpm : 1200
Check tolerance	- Aneroid pressure
$cm3/1000s.$: \leftarrow 6.0	- hPa : 700
Spreed Tolerance	- Del. quantity - cm3/1000 strokes : 145.0
cm3/1000 strokes : 4.5	- Tolerance
Check tolerance	- cm3/1000 strokes : + 1.0
cm3/1000s. : 7.5	- Check tolerance - cm3/1C00S. : +- 4.0
(B) SETTING OF INJECTION PUMP	- Spreed - Tolerance
WITH GOVERNOR	- cm3/1000 strokes : 4.0
	- Check tolerance - cm3/100Cs. : 7.5
GUIDE SLEEVE TRAVEL	- 1897 (UUCS. : 7.5
Rated speed rpm : 1257	
guide sleeve	- CONTROL LEVER
travel mm : 7.36	
Tolerance mm : + 0.15	- control lever
	- position degree : 103.0
Rated speed rpm : 250 guide sleeve	- tolerance degree : +- 4.0 -
travel mm : 0.44	- RATED SPEED
Tolerance mm : + 0.20	rack travel mm : 13.30
Rated speed rpm : 1080	- Rated speed rpm : 1245 - Tolerance 1/min : +- 5
guide sleeve	•
travel mm : 6.04	rack travel mm : 4.00
Tolerance mm : + 0.25	Rated speed rpm : 1375 Tolerance 1/min : +- 15
Rated speed rpm : 740	•
guide sleeve	rack travel mm : 0.50
travel mm : 4.26	Tolerance mm : +- 0.50
Tolerance mm : + 0.25	Rated speed rpm : 1500
Rated speed rpm : 1458	

LOW IDLE

control lever

position degree : 69.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 150

CRT man main. : > 6.50

Testing:

Rated speed rpm 250 rack travel mm 5.00 Tolerance mm : + 0.10

rack travel mm 2.00 : Rated speed rpm : 360 Tolerance 1/min : +

TORQUE CONTROL

Rated speed rpm 1200 rack travel mm 14.30 Tolerance mm : + 0.05

Rated speed rpm : 700 rack travel mm 14.30 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hPa 700 rack travel man 14.30 : +- 0.05 Tolerance mm

Rated speed rpm 500 Pressure hPa rack travel mm 12.80 Tolerance mm : + 0.10

MEASUREMENT

Rated speed rom : 500

320 Pressure hPa : rack travel mm 13.30 : + 0.05 Tolerance mm

Pressure hPa 410 rack travel mm 13.80 : + 0.10Tolerance mm

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure hPa

700 Rated speed rpm 700 Del. quantity

139.0

cm3/1000 strokes : Tolerance

cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : +-6.0

Aneroid pressure hPa Rated speed rpm : 500 Del. quantity

cm3/1000 strokes : 104.0

Tolerance

cm3/1000 strokes : +-1.0 Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100 rack travel mm 12.80 Toterance mm : → 0.10 Del. quantity

cm3/1000 strokes : 118.0

Tolerance cm3/1000 strokes : + 10.0

Check tolerance

cm3/1000s. : + 14.0

LOW IDLE

Rated speed rpm : 250

Rack travel in mm : 5.00 Tolerance mm : \leftarrow 0.10 Del. quantity cm3/1000 strokes : 12.0 Tolerance

cm3/1000 strokes : +- 3.0Check tolerance

: + 6.0

Spreed

cm3/1000s.

Tolerance : 4.5 Check tolerance cm3/1000s. : 7.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 25.11.97 : ISO 4113

Combination No. : 0 402 546 881

Injection pump

Pump designation : PES6P110A320RS3329

EP type number : 0 412 016 743

Governor

Governer design. : RQ325...1250PA1370

Governer no.

: 0 421 801 828

Cust. part No. : 1305236

Customer-spec. information Customer : DAF Motor : NS177M Power KW : 177.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 000

Inlet press. bar : : + 0.1 Tolerance bar

Overflow quantity

min. l/h : 140 Tolerance l/h : +- 20.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 2.0

x inside diameter: x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 5.25 : + 0.03 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 12.25 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 0-60-120-180-240 Phasing

: -300 Tolerance : + - 0.50

Check

tolerance "NW : + - 0.75

Start of delivery mark

Tolerance : + 0.10

Check

tolerance *NW : +- 0.75

Barrel no. 1

BASIC SETTING

Rated speed rpm : 1000

Rack travel in mm: 12.25 Tolerance mn: +- 0.05

4	guide sleeve
Del. quantity	travel mm : 3.48
cm3/1000 strokes : 149.5	Tolerance mm : + 0.10
1	
Tolerance	Rated speed rpm : 590
cm3/1000 strokes : + 1.0	guide sleeve
1	travel mm : 6.00
Check tolerance	Tolerance mm : + 0.10
cm3/1000s. : + 4.0	
	Rated speed rpm : 1460
Spreed	guide sleeve
1	travel mm : 11.50
Tolerance	Tolerance mm : + 0.50
cm3/1000 strokes : 4.0	
Check tolerance	GUIDE SLEEVE POSITION
cm3/1000s. : 7.5	
1	Rated speed rpm : 600
	, , , , , , , , , , , , , , , , , , , ,
 	Rack travel in mm: 20.00
Rated speed rpm : 325	Tolerance mm : + 0.80
+	
Rack travel in mm: 4.40	
Tolerance mm : + 0.10 +	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity	
cm3/1000 strokes : 26.0 +	Rated speed rpm : 1000
Tolerance	Aneroid pressure
cm3/1000 strokes : +- 2.5 +	hPa : 1500
Check tolerance	Del. quantity
cm3/1000s. : \leftarrow 6.0	cm3/1000 strokes : 149.5
Spreed	Tolerance
Tolerance +	cm3/1000 strokes : +- 1.0
cm3/1000 strokes : 8.0 +	Check tolerance
Check tolerance	cm3/1000s. : +- 4.0
cm3/1000s. : 12.0 +	Spreed
+	Tolerance
+	cm3/1000 strokes : 4.0
(B) SETTING OF INJECTION PUMP	Check tolerance
WITH GOVERNOR +	cm3/1000s. : 7.5
+	
GUIDE SLEEVE TRAVEL	CONTROL LEUES
Reted arred non- 1 1202	CONTROL LEVER
Rated speed rpm : 1292	academal Lauren
guide sleeve	control lever
travel mm : 6.37	position degree : 94.0
Tolerance and : + 0.15	tolerance degree : +- 4.0
Rated speed rpm : 325	RATED SPEED
guide sleeve	rack travel mm : 11.25
travel mm : 1.99	Rated speed rpm : 1290
Tolerance mm : + 0.20	Tolerance 1/min : +- 5
Total de des	Check
Rated speed rpm : 1000	speed 1/min : +- 10
guide steeve	oposition to the total to the total
travel mm : 6.00	rack travel mm : 4.00
Tolerance mm : + 0.10	Rated speed rpm : 1365
1000 1000 1000	Tolerance 1/min : +- 15
Rated speed rpm : 426	Check
The second control of the second control of	speed 1/min : +- 20
Т	CO CO

rack travel am : 0.50Tolerance mm : $\leftarrow 0.50$ Rated speed rpm : 1500

LOW IDLE

control lever

position degree : 72.0 tolerance degree : + 4.0

Setting point w/out bumper spring

Rated speed rpm : 225

CRT mm min. : > 6.50

Testing:

Rated speed rpm : 325 rack travel mm : 4.40 Tolerance mm : + 0.10

rack travel mm : 2.00
Rated speed rpm : 385
Tolerance 1/min : + 20

TORQUE CONTROL

Rated speed rpm : 1000 rack travel mm : 12.25 Tolerance mm : + 0.05

Rated speed rpm : 1250 rack travel mm : 12.25 Tolerance mm : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 600 Pressure hPa : 1000 rack travel mm : 12.25 Tolerance mm : + 0.05

Rated speed rpm : 600 Pressure hPa : - 6.80 Tolerance $m = \pm 0.20$

MEASUREMENT

Rated speed rpm : 600

Pressure hPa : 430 rack travel mm : 10.90 Tolerance mm : + 0.05

Pressure hPa : 220 rack travel mm : 8.10 Tolerance mm : ← 0.10

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa Rated speed rpm : 1000 Del. quantity

cm3/1000 strokes : 92.0

Tolerance

cm3/1000 strokes : +- 1.0

Check tolerance cm3/1000S. : +- 4.0

LOW IDLE

Rated speed rpm : 325

Rack travel in mm: 4.40 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 26.0 Tolerance cm3/1000 strokes : - 2.5

Check tolerance cm3/1000s. : \leftarrow 6.0

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 02.12.97 Test oil : ISO 4113

Combination No. : 0 402 066 712

Injection pump

Pump designation : PES6P120A120RS3358

: 0 412 026 784 EP type number

Governor

Governer design. : RSV475...1200P2A675

Governer no. : 0 421 833 594

Cust. part No. : 3283573

Customer-spec. information

: CDC Customer

: 6BTA-590 ELITE Motor

Power KW : 138.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C Tolerance °C : **←** 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 1.5

Overflow quantity

min. l/h : 100 Tolerance l/h : +- 20.0

Test nozzle holde

: 1 688 901 103 assembly

Opening pressure

: 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm 2.85 : + 0.05 Tolerance mm

Check

tolerance mm : +- 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-60-120-180-240

: -300 Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery blocking

*NW after s.o.d. : 7.75 : +- 0.50 Tolerance

Check

tolerance *NW : + 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1200

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Pools Americal Sin and a 14 70	
Rack travel in mm: 11.30 Tolerance mm: + 0.05	FULL LOAD DELIVERY AT FULL LOAD STOP
Del. quantity cm3/1000 strokes : 140.0	Rated speed rpm : 1200 Aneroid pressure
	hPa : 1500
Tolerance cm3/1000 strokes : + 1.0	Del. quantity cm3/1000 strokes : 140.0
Check tolerance cm3/1000s. : + 3.0	Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
Spreed	cm3/1000s. : + 3.0 Spreed
+	Tolerance
Tolerance + cm3/1000 strokes : 4.0 +	cm3/1000 strokes : 4.0 Check tolerance
	cm3/1000s. : 7.5
Check tolerance : 7.5	
	CONTROL LEVER
Rated speed rpm : 485	control lever
+	position degree : 104.0
Rack travel in mm: 5.30 Tolerance mm: + 0.10	tolerance degree : +- 4.0
Tolerance mm : + 0.10 + Del. quantity +	RATED SPEED
cm3/1000 strokes : 21.0	rack travel mm : 10.30
Tolerance	Rated speed rpm : 1265
cm3/1000 strokes : +- 2.0	Tolerance 1/min : ← 5
Check tolerance	
cm3/1000s. : + 4.5	rack travel mm : 4.00
Spreed +	Rated speed rpm : 1345 Tolerance 1/min : + 15
cm3/1000 strokes : 6.0	Tolerance 1/min : + 15
Check tolerance	rack travel mm : 0.85
cm3/1000s. 9.0	Tolerance mm : + 0.55
+	Rated speed rpm : 1475
(B) SETTING OF INJECTION PUMP	rack travel mm : 4.00
WITH GOVERNOR	Rated speed rpm : 1355
+	Tolerance 1/min : + 15
+	
GUIDE SLEEVE POSITION	
+	
control lever	LOW IDLE
position degree : -3	
Rated speed rpm : 800	control lever
	position degree : 82.0
Rack travel in mm: 0.50	tolerance degree : + 4.0
Tolerance mm : + 0.20	_
+	Setting point w/out bumper spring
governor spring	Dated aread 100
pre-tension + click setting x : 3.50 +	Rated speed rpm : 485 rack travel mm : 4.80
CLICK SELLING X : 3.30	rack travel mm : 4.80 Tolerance mm : +- 0.10
I	TOTAL THE THE TANK

Testing:

Rated speed rpm : 485 rack travel mm : 5.30 Tolerance mm : + 0.10

rack travel nm : 2.00
Rated speed rpm : 605
Tolerance 1/min : + 30

TORQUE CONTROL

Rated speed rpm : 1200 rack travel mm : 11.30 Tolerance mm : + 0.05

Rated speed rpm : 750 rack travel mm : 11.30 Tolerance mm : +- 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 11.30
Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : rack travel mm : 9.00
Tolerance mm : + 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 900 rack travel mm : 10.90 Tolerance mm : + 0.20

Pressure hPa : 560
rack travel mm : 9.55
Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hoa : 1500 Rated speed rpm : 750

Del. quantity

cm3/1000 strokes : 157.0

Tolerance		
cm3/1000 strokes	: +-	3.0
Check tolerance		
cm3/1000s.	: +-	6.0
Spreed		
Tolerance		
cm3/1000 strokes	:	8.0
Check tolerance		
cm3/1000s.	:	12.0

Aneroid pressure
hPa : Rated speed rpm : 500
Del. quantity
cm3/1000 strokes : 97.0
Tolerance
cm3/1000 strokes : + 2.0
Check tolerance
cm3/1000s : + 4.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
rack travel mm : 20.25
Tolerance mm : + 0.75
Del. quantity
cm3/1000 strokes : 170.0
Tolerance
cm3/1000 strokes : + 20.0
Check tolerance
cm3/1000s. : + 25.0

LOW IDLE

Rated speed rpm : 485 Rack travel in mm: 5.30 Tolerance mm Del. quantity cm3/1000 strokes : 21.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 4.5 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance 9.0 cm3/1000s.

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 03.12.97 Test oil : ISO 4113

Combination No. : 0 402 074 700A

Injection pump

Pump designation : PES4P110B720RS3383 : EP type number : 0 412 014 701

Governor

Governer design. : RSV300...1100P1A667

Governer no. : 0 421 833 582

Cust. part No. : 9880216

Customer—spec. information Customer : LIEBHERR

Motor : D 924 TI-E A2

Power KW : 149.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 049

Inlet press. bar : 1.5 Tolerance bar : ← 0.1

Tolerance l/h: + 10.0

Test nozzle holde

assembly : 1 688 901 101

Opening pressure

bar : 207.0 Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0

x Length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.20
Tolerance mm : + 0.05
Check
tolerance mm : + 0.10

Rack travel in mm : 10.50 Tolerance mm : + 1.50

Firing order : 4-2-1-3

Phasing : 0-90-180-270

Tolerance : \leftarrow 0.50

Check

tolerance *NW : +- 0.75

Start of delivery mark

Tolerance : \leftarrow 0.10

Check

tolerance *NW : +- 0.75

Barrel no. : 4

BASIC SETTING

Rated speed rpm : 880

Rack travel in mm : 13.85
Tolerance mm : + 0.05

Del. quantity

cm3/1000 strokes : 203.0

M03

Tolerance	- Tolerance
cm3/1000 strokes : +- 1.0	cm3/1000 strokes : + 1.0
1.0	- Check tolerance
Check tolerance	
	- cm3/1000s. : +- 3.5
cm3/1000s. : +- 3.5	- Spreed
	- Tolerance
Spreed	- cm3/1000 strokes : 4.0
	- Check tolerance
Tolerance	- cm3/1000s. : 7.5
cm3/1000 strokes : 4.0	CIID7 10003 ()
4.U	
Check tolerance	
cm3/1000s. : 7.5	CONTROL LEVER
	- control lever
	position degree : 99.0
Rated speed rpm : 500	tolerance degree : +- 4.0
mated speed i pili . 500	toterance degree : ** 4.0
Pools denoted in the state of 40	n Ditte ones
Rack travel in mm : 4.60	- RATED SPEED
Toterance in : + 0.10	rack travel mm : 12.85
Del. quantity	- Rated speed rpm : 920
cm3/1000 strokes : 24.0	Tolerance 1/min : +- 5
Tolerance	
cm3/1000 strokes : +- 3.0	rack travel mm : 4.00
Check tolerance	
	Rated speed rpm : 980
cm3/1000s. : +- 5.5	Tolerance 1/min : + 15
Spreed	•
Tolerance	- rack travel mm : 0.85
cm3/1000 strokes : 4.5	- Tolerance mm : + 0.55
Check tolerance	- Rated speed rpm : 1200
	nated observition 1 1200
cm3/7000s. : 7.5	P
₹	rack travel mm : 4.00
	- Rated speed rpm : 1000
(B) SETTING OF INJECTION PUMP	- Tolerance 1/min : + 15
WITH GOVERNOR	-
4	_
1	
GUIDE SLEEVE POSITION	- LOW IDLE
SOIDE SPEEAE LOSTITOIA	- LOW IDLE
†	-
control lever	- control lever
position degree : -3	- position degree : 80.0
Rated speed rpm : 800	- tolerance degree : +- 4.0
	-
Rack travel in mm: 0.50	- Setting point w/out bumper spring
Tolerance am : + 0.20	- secting both wroat pumper spring
Toterance ism : T 0.20	
	- Rated speed rpm : 500
governor spring	- rack travel mm : 2.80
pre-tension +	- Tolerance mm : + 0.10
click setting x : 4.50	-
	- Testing:
EIN LOAD DELTHERY AT FINE LOAD CTOD	Dated annual : 500
FULL LOAD DELIVERY AT FULL LOAD STOP	- Rated speed rpm : 500
+	rack travel mm : 4.60
Rated speed rpm : 880	- Tolerance mm : + 0.10
Aneroid pressure	
hPa : 1500	rack travel mm : 2.00
Del. quantity	- Rated speed rpm : 595
cm3/1000 strokes : 203.0	- Tolerance 1/min : +- 50

		+	Aneroid pressure	
TODALE CONTROL		+	hPa	: 1500
TORQUE CONTROL Rated speed rpm	. 000	Ť	Rated speed rpm	
rack travel ma	: 13.85	T	rack travel mm Tolerance mm	: 13.90
Tolerance man		Ť	Toterance mm	: ← 0.10
localdine in	. +- 0.03	T	Del. quantity cm3/1000 strokes	. 244.0
Rated speed rpm	: 500	I	Tolerance	. 210.0
rack travel mm	: 13.90	I	cm3/1000 strokes	7 0
Tolerance mm	: + 0.10	I	Check tolerance	. +- 3.0
TO COT ON FOCK HARM	0.10	I	cm3/1000s.	: +- 6.0
Rated speed rpm	: 700	I	Cm5/ 10003.	. +- 0.0
rack travel mm		1		
Tolerance mm	: + 0.10	1	Aneroid pressure	
TO COT OF TOO TON	0.10	I	hPa	
	·- · · · · · · · · ·		Rated speed rpm	500
ANEROID/ALTITUDE		` 1	Del. quantity	. 500
COMPENSATOR TEST			cm3/1000 strokes	• 170 0
Tall City Ton 1001		I	Tolerance	. 110.0
		Ī	cm3/1000 strokes	· + 1 n
SETTING		I	Check tolerance	
		I	cm3/1000s.	: + 3.5
Rated speed rpm	: 500	I	UND/ 10003.	· · · J.J
Pressure hPa		I		
rack travel ma		\underline{T}		
Tolerance mn		I	STARTING FUEL DEL	TVEDY
TO COT CATE COMM	0.10	I	SIMMITING LOCK DEF	TACUI
Rated speed rpm	: 500	1	Rated speed rpm	: 100
Pressure hPa	: -	1	rack travel mm	: 20.50
rack travel mm	: 11.25	Ļ	Tolorance mm	
Tolerance mm	: +- 0.20	1	Del. quantity	
		1	cm3/1000 strokes	: 150.0
MEASUREMENT		1	Tolerance	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
		1	cm3/1000 strokes	: +- 15.0
Rated speed rpm	: 500	1	Check tolerance	
, ,		4-	cm3/1000s.	: + 19.0
Pressure hPa	: 830	1		
rack travel mm	: 13.20	1		
Tolerance mm	: 0.05	1		
··· ·		+		
Pressure hPa	: 750	-{-	LOW IDLE	
rack travel mm	: 12.10	+		
Tolerance mm	: +- 0.20	+	Rated speed rpm	; 500
		+		
		+	Rack travel in mo	4.60
			Tolerance mm	: ← 0.10
FUEL DELIVERY CHA	ARACTERISTICS	+	Del. quantity	
		+	cm3/1000 strokes	: 24.0
		+	Tolerance	
Aneroid pressure		+	cm3/1000 strokes	: ← 3.0
hPa	: 1500	+	Check tolerance	
Rated speed rpm	: 500	+	cm3/1000s.	: +- 5.5
Del. quantity		+	Spreed	
cm3/1000 strokes	: 230.0	+	Tolerance	
Tolerance		+	cm3/1000 strokes	: 4.5
cm3/1000 strokes	: ← 3.0	+	Check tolerance	
Check tolerance		+	cm3/1000s.	: 7.5
cm3/1000S.	: 6.0	+		
		1		

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 28,11,97 Test oil : ISO 4113

Combination No. : 0 402 646 659

Injection pump

Pump designation : PE6P120A720RS7283-1.

EP type number : 0 412 626 945

Covernor

Governer design. : RQV300...1100PA1061

: -2K

: 0 421 815 465 Governer no.

Cust. part No. : 615.60.08.0304

Customer-spec. information Customer : SNF

: 40615.50 Motor Power KW : 200.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

temp. °C Tolerance "C 2.0

Overflow valve : 2 417 413 033

Inlet press. bar : 2.5 Tolerance bar : + 0.1

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : +- 1.5

Test lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter: 3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : + 1.0

Prestroke mm : 4.45 : + 0.05 Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm : 14.00 Tolerance mm : +- 0.50

Firing order : 1-5-3-6-2-

: 4

Phasing : 0-69-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery blocking

Tolerance : +- 0.10

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1100

Rack travel in mm: 13.30 Tolerance mm : +- 0.05

Del. quantity

cm3/1000 strokes : 244.0

	+ Rated speed rpm : 364
Tolerance	🕂 guide sleeve
cm3/1000 strokes : $+$ 1.0	+ travel mm : 2.49
Check tolerance	Tolerance mm : +- 0.25
cm3/1000s. : +- 4.0	Rated speed rpm : 480
GR57 10005: 7.0	+ Rated speed rpm : 480 + guide sleeve
Spreed	travel mm : 3.56
	+ Tolerance mm : + 0.25
Tolerance	†
cm3/1000 strokes : 6.0	+ Rated speed rpm : 1390
Check tolerance	† guide sleeve † travel mm : 13.50
cm3/1000s. : 9.0	Tolerance mm : +- 0.50
Dated 700	+ GUIDE SLEEVE POSITION
Rated speed rpm : 300	†
Rack travel in mm : 6.30	‡ control lever
Tolerance mm : + 0.10	position degree : - 1
Del. quantity	+ Rated speed rpm : 1230
cm3/1000 strokes : 27.5	+
Tolerance cm3/1000 strokes : +- 3.0	Rack travel in mm: 12.30
Check tolerance	† Tolerance mma : +- 1.30
cm3/1000s. : +- 6.0	
Spreed	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	+
cm3/1000 strokes : 8.0	+ Rated speed rpm : 1100
Check tolerance : 12.0	+ Aneroid pressure
cm3/1000s. : 12.0	† hPa : 1200 † Del. quantity
	- cm3/1000 strokes : 244.0
(E) SETTING OF INJECTION PUMP	Tolerance
WITH GOVERNOR	+ cm3/1000 strokes : + 1.0
	+ Check tolerance
GUIDE SLEEVE TRAVEL	+ cm3/1000s. : + 4.0
GOIDE SCEEVE TRAVEL	+ Spreed + Tolerance
Rated speed rpm : 1156	+ cm3/1000 strokes : 6.0
guide sleeve	+ Check tolerance
travel mm : 10.32	+ cm3/1000s. : 9.0
Tolerance mm : + 0.25	†
Rated speed rpm : 300	
guide sleeve	CONTROL LEVER
travel mm : 1.64	+
Tolerance mm : + 0.25	the control lever
Dated accord now a 047	+ position degree : 119.0
Rated speed rpm : 817 guide sleeve	tolerance degree : + 4.0
travel mm : 6.93	T RATED SPEED
Tolerance mm : + 0.25	rack travel mm : 12.30
	Rated speed rpm : 1145
Rated speed rpm : 314	Tolerance 1/min : + 8
guide sleeve	† mate transition of 22
travel mm : 1.82 Tolerance mm : + 0.25	+ rack travel mm : 4.00
TOTAL HIRE HIRE TOTAL	+ Rated speed rpm : 1255 + Tolerance 1/min : + 15
	i Total dina 17 mm . (= 1)

rack travel mm Tolerance mm Rated speed rpm	: ← 0.75	Pressure hPa rack travel mm Tolerance mm MEASUREMENT	: 11.10 : + 0.10
LOW IDLE		Rated speed rpm Pressure hPa	
		rack travel mm Tolerance mm	: 11.80
control lever position degree tolerance degree	: + 4.0	Pressure hPa rack travel mm Tolerance mm	: 700 : 12.75
Setting point w/o	out bumper spring	• ‡	
Rated speed rpm	: 200	Start interlock	
CRT am min. Testing:	: > 8.00	Rated speed rpm Rated speed rpm	: > 100 : < 220
_		Check	
Rated speed rpm rack travel mm	: 300	+ speed 1/min + Check	: > 80
rack travel mm Tolerance mm	: + 0.10	speed 1/min	: < 240
Rated speed rpm TORQUE CONTROL	: 314	FUEL DELIVERY CHA	RACTERISTICS
Rated speed rpm	: 1100_	Aneroid pressure	
rack travel mm Tolerance mm	: 13.30 ; + 0.05	hPa Rated speed rpm	: 1200 : 700
Rated speed rpm		Del. quantity cm3/1000 strokes	
rack travel mm Tolerance mm	: 12.15	† Tolerance	
Tolerance mm	: + 0.10	+ cm3/1000 strokes + Check tolerance	: +- 3.0
Rated speed rpm rack travel mm Tolerance mmm	: 900 : 12.90	+ cm3/1000s. + Spreed	: +- 6.0
		Tolerance cm3/1000 strokes	
Rated speed rpm rack travel mm Tolerance mm	: 500 : 12.10 : ← 0.15	check tolerance cm3/1000s.	
ANEROID/ALTITUDE COMPENSATOR TEST		rack travel mm Tolerance mm	: 12.90 : + 0.15
SETTING		Aneroid pressure hPa Rated speed rpm	: – : 500
Rated speed rpm Pressure hPa rack travel mm	: 1100 : 1200 : 13.30	+ Del. quantity + cm3/1000 strokes + Tolerance	: 223.0
Tolerance mm	: + 0.05	cm3/1000 strokes Check tolerance	: + 1.0
Rated speed rpm	: 1100	cm3/1000s.	: +- 4.0

MO9

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

STARTING FUEL DELIVERY

Del. quantity

cm3/1000 strokes : 160.0

Tolerance

cm3/1000 strokes : + 20.0

Check tolerance

cm3/1000s. : \leftarrow 24.0

LOW IDLE

Rated speed rpm : 300

Rack travel in mm: 6.30 Tolerance mm: : + 0.10

Del. quantity

cm3/1000 strokes : 27.5

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : \leftarrow 6.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 28,11,97 : ISO 4113

Combination No.

: 0 402 648 705

Injection pump

Pump designation : PE8P120A320LS7913

EP type number

: 0 412 628 928

Governor

Governer design. : RQV350...1050PA1358

Governer no.

: 0 421 814 201

Cust. part No. : 0270742402

Customer-spec, information

: MB-NFZ Customer

: 07442LA Euromot Matar

Power KW : 320.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance °C

Overflow valve : 2 417 413 077

Inlet press. bar : 2.0

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

bar

: 208.5

Tolerance bar

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

: 5.25 Prestroke mm

Tolerance mm

Check

tolerance mm : + 0.10

Rack travel in mm: 20.50

Tolerance mm : +- 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180

: -225-270-315

Tolerance : +- 0.50

Check

tolerance "NW : +- 0.75

Start of delivery mark

Tolerance : + 0.10

Check

tolerance °NW : +- 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 14.40

Tolerance mm : +- 0.05

Del. quantity cm3/1000 strokes : 227.0	† Tolerance mm : ← 0.25
	+ Rated speed rpm : 1204
Tolerance	+ guide sleeve
cm3/1000 strokes : + 1.0	+ travel mm : 10.00
	+ Tolerance mm : + 0.25
Check tolerance	1
cm3/1000s. : + 4.0	Rated speed rpm : 1300
(1857 10000) 4.0	
0	+ guide sleeve
Spreed	+ travel mm : 11.50
	+ Tolerance mm : + 0.50
Tolerance	+
cm3/1000 strokes : 6.0	
	GUIDE SLEEVE POSITION
Check tolerance	1 00300 002000 1 00111011
cn ₃ /1000s. : 9.0	Ţ
· 7.0	T annual laura
	+ control lever
	position degree : - 1
	+ Rated speed rpm : 1150
Rated speed rpm : 350	+
	Rack travel in mm: 13.05
Rack travel in mm : 5.30	+ Tolerance mm : + 1.30
Tolerance mm : + 0.10	1,00
Del. quentity	
cm3/1000 strokes : 19.0	FIRE LOAD OF THERM AT THE LOAD OTEN
	FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance	†
cm3/1000 strokes : + 3.0	+ Rated speed rpm : 1050
Check tolerance	+ Aneroid pressure
cm3/1000s. : ← 6.0	h/a : 1000
Spreed	Del. quantity
Tolerance	+ cm3/1000 strokes : 227.0
cm3/1000 strokes : 8.0	+ Tolerance
Check tolerance	+ cm3/1000 strokes : + 1.0
cm3/1000s. : 12.0	Check tolerance
12.0	
	+ Spreed
(B) SETTING OF INJECTION PUMP	+ Tolerance
WITH GOVERNOR	+ cm3/1000 strokes : 6.0
	+ Check tolerance
	+ cm3/1000s. : 9.0
GUIDE SLEEVE TRAVEL	+
	+
Rated speed rpm : 1097	
guide sleeve	+ CONTROL LEVER
travel mm : 7.85	
Tolerance mm : + 0.15	+ control lever
Total arice han	position degree : 117.0
Rated speed rpm : 350	
	tolerance degree : +- 4.0
guide sleeve	†
travel mm : 1.48	+ RATED SPEED
Tolerance mm : + 0.20	+ rack travel mm : 13.40
	+ Rated speed rpm : 1085
Rated speed rpm : 900	+ Tolerance 1/min : +- 5
guide sleeve	1
travel mm : 5.69	rack travel mm : 4.00
Tolerance mm : + 0.25	Rated speed rpm : 1175
TO COLORING TO U.C.)	
Data di anno di mm	† Tolerance 1/min : + 15
Rated speed rpm : 580	†
guide sleeve	+ rack travel mm : 0.50
travel mm : 3.62	+ Tolerance mm : + 0.50

Rated speed rpm	: 1300	rack travel mm Tolerance mm	
		†	. /50
		+ Pressure hPa + rack travel mm	: 450 : 2.25
LOW IDLE		Tolerance mm	: + 0.15
control lever		Start interlock	
position degree	: 67.0	+ Start Inter took	
tolerance degree		+ Rated speed rpm	: > 100
Setting point w/o	out bumper spring	Rated speed rpm	: < 270
Rated speed rpm	: 250	+ Check	. > 00
•		speed 1/min Check	: > 80
CRT mm min.	: > 7.60	speed 1/min	: < 290
Testing:		+	
Bakadan te	700	+ FUEL DELIVERY CHA	RACTERISTICS
Rated speed rpm		†	
rack travel mm Tolerance mm		(manaid programs	
ioceidite imii	. += 0.10	+ Aneroid pressure + hPa	: 1000
Rated speed rpm	: 400	Rated speed rpm	
The second of th		+ Del. quantity	. 000
		+ cm3/1000 strokes	: 248.0
TORQUE CONTROL		+ Tolerance	
Rated speed rpm		+ cm3/1000 strokes	: +- 3.0
rack travel mm		+ Check tolerance	
Tolerance mm	: ← 0.05	cm3/1000s.	: +- 6.0
Rated speed rpm	. 600	+ Spreed + Tolerance	
rack travel ma	: 14.70	+ cm3/1000 strokes	
rack travel mm Tolerance mm	: + 0.10	Check tolerance	. 0.0
		+ cm3/1000s.	: 12.0
Rated speed rpm		+	
rack travel mm			
Tolerance run	: ← 0.05	+ rack travel mm	: 14.55
		+ Tolerance mm	: +- 0.05
ANEGOTO /AL TITUDE		†	
ANEROID/ALTITUDE COMPENSATOR TEST		Aneroid pressure	
COR BIORION 1231		+ hPa	
		+ Rated speed rpm	: 500
SETTING		+ Del. quantity	. 300
		+ cm3/1000 strokes	: 143.0
Rated speed rpm	: 500	+ Tolerance	
Pressure hPa	: -	+ cm3/1000 strokes	: + 1.0
rack travel mm	: 3.10	+ Check tolerance	
Tolerance mm	: +- 0.20	+ cm3/1000s.	: +- 4.0
Rated speed rpm	: 500	+ Spreed + Tolerance	
Pressure hPa	• -	+ cm3/1000 strokes	: 8.0
., coult c in q	•	Check tolerance	. 0.0
MEASUREMENT		cm3/1000s.	: 12.0
Rated speed rpm	: 500	DENICED OUALITY	
Pressure hPa	: 250	REDUCED QUANTITY	

M13

Aneroid pressure

hPa 1000 Rated speed rpm 1050

Del. quantity cm3/1000 strokes : 168.0

Tolerance

cm3/1000 strokes : + 2.0

Check tolerance

cm3/1000s.: **←** 5.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 250.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm : 350

Rack travel in num : 5.30 Tolerance ma 0.10

Del. quantity

cm3/1000 strokes : 19.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. 6.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. 12.0

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 01.12.97 Test oil : ISO 4113

Combination No. : 0 402 648 785

Injection pump

Pump designation : PE8P12OA32OLS7844 EP type number : 0 412 628 860

Governor

Governer design. : RQV350...1050PA1318

Governer no. : 0 421 814 185

Cust. part No. : 0270746302

Customer-spec. information
Customer : MB-NFZ
Motor : OM/42 LA
Power KW : 370.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : ← 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0
Tolerance bar : + 0.1

Overflow quantity

min. L/h : 130 Tolerance L/h : +- 20.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : 1.0

Prestroke mm : 5.05
Tolerance mm : + 0.05
Check

tolerance mm

Rack travel in mm : 20.50

Tolerance mm : + 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

: +- 0.10

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Tolerance : \leftarrow 0.10

Check

tolerance *NW : +- 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm : 15.30 Tolerance mm : + 0.05

Del. quantity	. 272.0	guide sleeve travel mma : 3.62
cm3/1000 strokes		Tolerance mm : +- 0.25
Tolerance cm3/1000 strokes	: + 1.0	Rated speed rpm : 1204 guide sleeve travel mm : 10.00
Check tolerance cm3/1000s.	: + 4.0	travel mm : 10.00 Tolerance mm : + 0.25
Spreed		Rated speed rpm : 1300 guide sleeve travel mm : 11.50
Tolerance cm3/1000 strokes	: 5.0	travel mm : 11.50 Tolerance mm : + 0.50
Check tolerance cm3/1000s.	: 9.0	GUIDE SLEEVE POSITION
5	-	control lever position degree : - 1
Rated speed rpm	: 350	Rated speed rpm : 1174
Del. quantity	: ← 0.10	Rack travel in mm : 11.00 Tolerance mm : +- 1.30
cm3/1000 strokes Tolerance cm3/1000 strokes	-	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	: +- 6.0	Rated speed rpm : 1050 Aneroid pressure
Spreed Tolerance		hPa : 1800 Del. quantity
cm3/1000 strokes Check tolerance	: 6.0	cm3/1000 strokes : 272.0
	: 10.0	cm3/1000 strokes : + 1.0 Check tolerance
(B) SETTING OF INJI	ECTION PUMP -	cm3/1000s. : +- 4.0 Spreed
WITH GOVERNOR		Tolorance cm3/1000 strokes : 5.0
GUIDE SLEEVE TRAVE	L	Check tolerance : 9.0
Rated speed rpm : guide sleeve	: 1106	
travel mm :	8.02	CONTROL LEVER
Tolerance mm	: ← 0.15	t control lever
Rated speed rpm : guide sleeve	: 350	position degree : 120.0 tolerance degree : + 4.0
travel mm	: 1.48	DATES COURS
	: + 0.20	RATED SPEED : 14.30
guide sleeve	: 900	Rated speed rpm : 1095 Tolerance 1/min : +- 5
	: 5.69 - : + 0.25 -	rack travel mm : 4.00
	4	Rated speed rpm : 1190
Rated speed rpm :	: 580 -	Tolerance 1/min : + 15

rack travel mm : 0.50 Tolerance mm : + 0.50 Rated speed rpm : 1300 LOW IDLE control lever position degree : 64.0 tolerance degree : + 4.0 Setting point w/out bumper spring 250 Rated speed rpm CRT men min. : > 7.00 Testing: Rated speed rpm 350 5.00 rack travel mm : Tolerance mm : + 0.10 Rated speed rpm 450 TORQUE CONTROL 1050 Rated speed rpm : 15.30 rack travel mm : : + 0.05 Tolerance mm 800 Rated speed rpm : 15.30 rack travel mm : : + 0.10 Tolerance mm ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm 500 Pressure hPa **MEASUREMENT** 700 Pressure hPa 4.80 rack travel mm Tolerance mm : + - 0.20Pressure hPa : 180

0.40

: +- 0.05

Rated speed rpm Rated speed rpm	: > 100 : < 270
Check speed 1/min Check speed 1/min	: > 80 : < 290
FUEL DELIVERY CHA	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
REDUCED QUANTITY Aneroid pressure	
hipa Rated speed rpm Del. quantity	: 1800 : 1050
cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance	
cm3/1000s.	: +- 4.0
STARTING FUEL DEL	_
Rated speed rpm Del. quantity cm3/1000 strokes	: 100 : 270.0
Tolerance cm3/1000 strokes Check tolerance cm3/1000S.	: + 10.0 : + 14.0

rack travel mm Tolerance mm

Start interlock

LOW IDLE

Rated speed rpm	:		350
Rack travel in mm Tolerance mm Del. quantity	-	+-	5.00 0.10
cm3/1000 strokes Tolerance	:		19.0
cm3/1000 strokes Check tolerance	:	+-	3.0
cm3/1000s. Spreed	:	+-	6.0
Tolerance cm3/1000 strokes Check tolerance	:		6.0
cm3/1000s.	:		10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 01.12.97

Test oil

: ISO 4113

Combination No. : 0 402 648 788

Injection pump

Pump designation : PE8P120A320LS7897

EP type number

: 0 412 628 915

6overnor

6overner design. : RQV350...1050PA1307

Governer no. : 0 421 814 180

Cust. part No. :

Customer-spec, information Customer : MB-NFZ : 0M442 LA Motor Power KW : 370.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C

Overflow valve : 1 417 413 077

Inlet press. bar : 2.0 : + 0.1 Tolerance bar

Overflow quantity

min. L/h : 110 Tolerance L/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 har Tolerance bar : **←** 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter: 2.5 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar: Tolerance bar : + 1.0

rrestroke mm : 4.80 : + 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 20.50 Tolerance mm : +- 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180 : -225-270-315

Tolerance : +- 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Tolerance : ← 0.10

Check

tolerance *NW : +- 0.75

Barrel no. 8

BASIC SETTING

Rated speed rpm : 1050

Rack travel in mm: 15.35 Tolerance m_0 : +- 0.05

<u> </u>	- guide sleeve
Del. quantity	travel mm : 3.57
cm3/1000 strokes : 272.0	Tolerance mm : + 0.25
1	
Tolerance	Rated speed rpm : 1204
cm3/1000 strokes : + 1.0	guide steeve
	travel mm : 10.00
Check tolerance	
	Tolerance mm : \leftarrow 0.25
cm3/1000s. : +- 4.0	
	Rated speed rpm : 1300
Spreed	guide sleeve
†	travel mm : 11.50
Tolerance	· Tolerance mm : + 0.50
cm3/1000 strokes : 5.0	•
+	
Check tolerance	GUIDE SLEEVE POSITION
cm3/1000s. : 9.0	•
1	•
	control lever
${ m I}$	position degree : - 1
Rated speed rpm : 350	Reted speed rpm : 1160
Large about this and	nated spead thus : 1100
Rack travel in mm: 5.10	Pock through in man a 47.70
Tolerance mm : 5.10 +	Rack travel in mm: 14.30
	Tolerance mm : + 1.30
Del. quantity	
cm3/1000 strokes : 20.0	
Tolerance	FULL LOAD DELIVERY AT FULL LOAD STOP
cm3/1000 strokes : + 3.0 +	
Check tolerance	Rated speed rpm : 1050
$cm3/1000s.$: \leftarrow 6.0	Aneroid pressure
Spreed	hPa : 1800
Tolerance	Del. quantity
cm3/1000 strokes : 6.0	cm3/1000 strokes : 272.0
Check tolerance	Tolerance
cm3/1000s. : 10.0	cm3/1000 strokes : +- 1.0
1	Check tolerance
\mathbf{I}	cm3/1000s. : +- 4.0
(B) SETTING OF INJECTION PUMP	Spreed
WITH GOVERNOR	
WILL GOACUACK	Tolerance
†	cm3/1000 strokes : 5.0
	Check tolerance
GUIDE SLEEVE TRAVEL +	cm3/1000s. : 9.0
+	
Rated speed rpm : 1108	
guide steeve	
travel mm : 8.04	CONTROL LEVER
Tolerance mm : + 0.15 +	
 	control lever
Rated speed rpm : 350	position degree : 121.0
guide sleeve	tolerance degree : +- 4.0
travel mm : 1.48	7,10
Tolerance mm : + 0.20	RATED SPEED
1	rack travel mm : 14.30
Rated speed rpm : 900	Rated speed rpm : 1095
guide sleeve	Tolerance 1/min : +- 5
travel mm : 5.69	and the sales of t
Tolerance mm : \leftarrow 0.25	rack travel mm : 4.00
+	Rated speed rpm : 1195
Rated speed rpm : 570 +	Tolerance 1/min : + 15
}	

rack travel mm 0.50 Tolerance mm : +- 0.50 Rated speed rpm 1240 LOW IDLE control lever position degree : 67.0 tolerance degree : +-4.0 Setting point w/out bumper spring Rated speed rom 250 : : > CRT men min. 7.50 Testing: Rated speed rpm 350 rack travel mm 5.10 Tolerance mm : + 0.10Rated speed rom 450 TORQUE CONTROL Rated speed rpm 1050 15.35 rack travel mm Tolerance ma : + 0.05 Rated speed rpm 800 rack travel mm 15.35 Tolerance mm : + 0.10ANEROID/ALTITUDE COMPENSATOR TEST SETTING Rated speed rpm 500 Pressure hPa **MEASUREMENT** Pressure hPa 290 1.00 rack travel mm Tolerance men : **←** 0.05 Pressure hPa 660 rack travel mm 4.10 : + 0.20Tolerance mm

Rated speed rpm : > 210 Rated speed rpm 270 : < Check speed 1/min 190 : > Check speed 1/min 290 : < FUEL DELIVERY CHARACTERISTICS Aneroid pressure hPa 1800 Rated speed rpm 800 Del. quantity cm3/1000 strokes : 274.0 Tolerance cm3/1000 strokes : +-3.0 Check tolerance cm3/1000s. 6.0 Aneroid pressure hPa Rated speed rpm 500 Del. quantity cm3/1000 strokes : 140.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 4.0 REDUCED QUANTITY Aneroid pressure 1800 Rated speed rpm 1050 Del. quantity cm3/1000 strokes : 156.0 Tolerance cm3/1000 strokes : +-2.0 Check tolerance cm3/1000s. 5.0 STARTING FUEL DELIVERY Rated speed rpm 100 Del. quantity cm3/1000 strokes : 270.0 Tolerance cm3/1000 strokes : \leftarrow 10.0

Check tolerance

: +- 14.0

cm3/1000s.

LOW IDLE

Rated speed rpm	:	350
Rack travel in mm Tolerance mm Del. quantity	: +	5.10 - 0.10
cm3/1000 strokes Tolerance	:	20.0
cm3/1000 strokes Check tolerance	: +	- 3.0
cm3/1000s. Spreed	: +	- 6.0
Tolerance cm3/1000 strokes Check tolerance	:	6.0
cm3/1000s.	:	10.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil : 28.11.97 : ISO 4113

Combination No. : 0 402 666 804

Injection pump

Pump designation : PE6P120A320/3LS7893

EP type number : 0 412 626 952

Governor

Governer design. : RSV600...1050P0A636

Governer no. : 0 421 833 544

Cust. part No. : 0270743902

Customer-spec. information Customer : MB-NFZ : OM 441 LA Motor Power KW : 285.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C 40 Tolerance °C 2.0

Overflow valve : 2 417 413 077

Inlet press. bar : Tolerance bar : + 0.1

Overflow quantity

: 120 min. L/h Tolerance l/h: + 20.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

208.5 bar Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0

x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : +- 1.0

Prestroke mm 4.75 Tolerance mm : **←** 0.05

Check tolerance mm

Rack travel in mm: 20.50

Tolerance man : + 0.50

Firing order : 6-3-5-2-4-

: 1

: +- 0.10

Phasing : 0-45-120-165-240

: -285 Tolerance : **→** 0.50

Check

tolerance *NW : **←** 0.75

Start of delivery mark

Barrel no. : 6

BASIC SETTING

Rated speed rpm : 1075

Rack travel in mm : 13.70 Tolerance mm : +- 0.05

tel. quantity cm3/1000 strokes : 251.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. : 9.0	Aneroid pressure hPa : 1200 Del. quantity cm3/1000 strokes : 251.0 Tolerance cm3/1000 strokes : + 1.0 Check tolerance cm3/1000s. : + 4.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000 strokes : 9.0
Rated speed rpm : 600 Rack travel in mm : 4.10 Tolerance mm : + 0.10 Del. quantity cm3/1000 strokes : 17.0 Tolerance cm3/1000 strokes : + 3.0 Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance	control lever position degree : 86.0 tolerance degree : 4.0 RATED SPEED rack travel mm : 12.70 Rated speed rpm : 1115 Tolerance 1/min : + 5
CM3/10C0 strokes: 8.0 Check tolerance cm3/1000s.: 12.0 (B) SETTING OF INJECTION PUMP WITH GOVERNOR	control lever position degree : 71.0 tolerance degree : + 4.0 Setting point w/out bumper spring Rated speed rpm : 100
control lever position degree : - 3 Rated speed rpm : 800 Rack travel in mm : 0.50 Tolerance mm : + 0.20 governor spring pre-tension click setting x : 1.50 FULL LOAD DELIVERY AT FULL LOAD STOP	CRT mm min. : > 19.50 Testing: Rated speed rpm : 600 rack travel mm : 4.10 Tolerance mm : + 0.10 rack travel mm : 2.00 Rated speed rpm : 630 Tolerance 1/min : + 30 SET IDLE AUXILIARY SPRING rack travel mm : 2.00
Rated speed rpm : 1075	TORQUE CONTROL Rated speed rpm : 1075

rack travel mm Tolerance mm	: 13.70 : ← 0.05
Rated speed rpm rack travel mm Tolerance mm	: 800 : 14.75 : + 0.10
Rated speed rpm rack travel man Tolerance mm	
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
Rated speed rpm Pressure hPa rack travel man Tolerance mm	: 1200
Rated speed rpm Pressure hPa rack travel num Tolerance mm	: -
MEASUREMENT	
Rated speed rom	: 500
Pressure hPa rack travel mm Tolerance mm	: 250 : 8.90 : + 0.05
Pressure hPa Tolerance mm	: 460 : +- 0.20
FUEL DELIVERY CHA	ARACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity	: 1200 : 800
cm3/1000 strokes Tolerance	: 291.0
cm3/1000 strokes Check tolerance cm3/1000s.	: ← 3.0 : ← 6.0
rack travel mm Tolerance mm	: 14.35 : + 0.10

Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: + 1.0 : + 4.0
STARTING FUEL DEL	IVERY
Rated speed rpm rack travel mm Tolerance mm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	
LOW IDLE	
Rated speed rpm	: 600
Rack travel in mm Tolerance mma Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: ← 0.10

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 01.12.97 : ISO 4113

Combination No. : 0 402 678 827

Injection pump

Pump designation : PE8P120A320LS7886 . EP type number : 0 412 628 903

Governor

Governer design. : RSV550...850P0A574

: -1

Governer no.

: 0 421 833 476

Cust. part No. : 0260741102

Customer-spec. information Customer : MB-NFZ Motor : 0M442LA Power KW : 329.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. l/h : 120 Tolerance l/h : + 10.0

Test nozzle holde

: 1 688 901 105 assembly

Opening pressure

: 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter: 8.0

x inside diameter : x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

26.0 Test pressure bar : Tolerance bar : ← 1.0

Prestroke mm : 5.05 Tolerance mm : **←** 0.05

Check

tolerance mm : + 0.10

Rack travel in mm: 20.50 Tolerance mm : **←** 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180

> : -225-270-315 : + 0.50

: + - 0.75

Tolerance Check

tolerance *NW

Start of delivery mark

Tolerance : +- 0.10

Check

tolerance *NW : + 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 830

M26

		+	
Rack travel in mm Tolerance mm	: 15.40 : + 0.05	+	Y AT FULL LOAD STOP
Del. quantity cm3/1000 strokes	: 264.0	Rated speed rpm Aneroid pressure hPa	: 830 : 1200
Tolerance cm3/1000 strokes	: + 1.0	+ Del. quantity - cm3/1000 strokes - Tolerance	
Check tolerance cm3/1000s.	: + 4.0	cm3/1000 strokes Check tolerance cm3/1000s.	: + 1.0 : + 4.0
Spreed		+ Spreed Tolerance + cm3/1000 strokes	: 6.0
Tolerance cm3/1000 strokes	: 6.0	Check tolerance cm3/1000s.	: 9.0
Check tolerance cm3/1000s.	: 9.0	CONTROL LEVED	
		CONTROL LEVER control Lever	
Rated speed rpm	: 550	position degree tolerance degree	
Rack travel in mm Tolerance mm	: 3.90 : + 0.10	‡	
Del. quantity cm3/1000 strokes Tolerance	: 19.0	ASSEMBLY GOVERNOR	
cm3/1000 strokes Check tolerance	: +- 3.0	Rated speed rpm rack travel mm	
cm3/1000s. Spreed	: + 6.0	Rated speed rpm Tolerance 1/min	: 920 : + 4
Tolerance cm3/1000 strokes Check tolerance	: 5.0	track travel mm	: 4.00 : 0.85
cm3/1000s.	: 10.0	Tolerance mm Rated speed rpm	: ← 0.55
(B) SETTING OF IN. WITH GOVERNOR	JECTION PUMP	Rated speed rpm	. 871
WITH GOVERNOR		rack travel mm	: 14.40
GUIDE SLEEVE POSI	TION	Rated speed rpm Tolerance 1/min rack travel mm	: +- 4
control lever position degree Rated speed rpm		rack travel mm Tolerance mm Rated speed rpm	: +- 0.55
Rack travel in mm Tolerance mm	: 0.50 : + 0.20	Rated speed rpm rack travel mm	: 872 · 14.40
governor spring pre-tension click setting x	: 2.00	Rated speed rpm Tolerance 1/min	: 922 : +- 4
		† rack travel mm	: 4.00

rack travel mm	: 0.85			
Tolerance mm	: + 0.55			
Rated speed rpm	: 1050			
Rated speed rpm	: 873			
rack travel mm	: 14.40			
Rated speed rpm	: 923			
Tolerance 1/min	: + 4			
rack travel mm	: 4.00			
rack travel mm Tolerance man Rated speed rpm	: 0.85			
Rated speed rpm	: 874			
rack travel mm	: 14.40			
Rated speed rpm	: 924			
Tolerance 1/min	: +- 4			
rack travel mm	: 4.00			
rack travel mm Tolerance mm Rated speed rpm	: + 0.55			
Rated speed rpm	: 875			
rack travel mm	: 14.40			
Rated speed rpm	: 925			
Tolerance 1/min	: ← 4			
rack travel mm	: 4.00			
rack travel mm	: 0.85			
Tolerance mm	: + 0.55			
Rated speed rpm	: 1050			
LOW IDLE				
control lever position degree tolerance degree	: 66.0 : + 4.0			
Setting point w/out bumper spring				
Rated speed rpm	: 100			
CRT mm min.	: > 19.00			
Testing:				
Rated speed rpm	: 550			
rack travel mm	: 3.90			
Tolerance mm	: + 0.10			

rack travel man Rated speed rpm Tolerance 1/min	
SET IDLE AUXILIAR	Y SPRING
rack travel mm	: 2.00
TORQUE CONTROL	
Rated speed rpm rack travel mm	: 830
rack travel mm Tolerance mm	: 15.40 : + 0.05
TO CET GRICE THIS	0.05
Rated speed rpm	
rack travel mm Tolerance mm	: 15.40 : + 0.10
	. 00
ANEROID/ALTITUDE	
COMPENSATOR TEST	
SETTING	
Rated speed rpm	: 500
Pressure hPa	: 500 : 1200
rack travel mm Tolerance mm	: 15.40 : + 0.10
rOter Gille i間i	0.10
Rated speed rpm	
Pressure hPa rack travel mm	: - 10.30
Tolerance mm	: 10.30 : + 0.20
MEASUREMENT	
Rated speed rpm	: 500
, ,	
Pressure hPa	: 500
rack travel ma Tolerance mm	: 12.35 : + 0.20
Pressure hPa rack travel mm	: 710 : 14.30
Tolerance mm	: +- 0.20
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa	: 1200
Rated speed rpm	: 600
Del. quantity	
cm3/1000 strokes Tolerance	: 283.0

Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

Aneroid pressure hPa 500 Rated speed rpm Del. quantity cm3/1000 strokes : 174.0 Tolerance cm3/1000 strokes : \leftarrow 1.0 Check tolerance cm3/1000s.: + 4.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s.12.0

STARTING FUEL DELIVERY

Rated speed rpm : 100
Del. quantity
cm3/1900 strokes : 275.0
Tolerance
cm3/1000 strokes : + 15.0
Check tolerance
cm3/1000s. : + 19.0

LOW IDLE

Rated speed row : *55*0 Rack travel in mm: 3.90 : + 0.10 Tolerance mm Del. quantity cm3/1000 strokes : 19.0 Tolerance cm3/1000 strokes : +- 3.0 Check tolerance cm3/1000s. : +- 6.0 Spreed Tolerance cm3/1000 strokes : 6.0 Check tolerance cm3/1000s. 10.0

Note reparks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 01.12.97 Test oil : ISO 4113

Combination No. : 0 402 678 835

Injection pump

Pump designation : PE8P120A320LS7844 EP type number : 0 412 628 860

Governor

Governer design. : RSV350...1050P0A673

Governer no. : 0 421 833 590

Cust. part No. : 0270746802

Customer—spec. information Customer : MB-NFZ Motor : OM442LA Power KW : 370.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

min. L/h : 140
Tolerance L/h : + 10.0

Test nozzle holde

assembly : 1 688 901 105

Opening pressure

bar : 208.5 Tolerance bar : + 1.5 Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINMING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mma : 5.05
Tolerance mma : + 0.05
Check

tolerance mm : + 0.10

Rack travel in sm : 20.50 Tolerance mm : + 0.50

Firing order : 8-7-2-6-3

: - 5- 4- 1

Phasing : 0-45-90-135-180

: -225-270-315

Tolerance : + 0.50

Check

tolerance *NW : + 0.75

Start of delivery mark

Tolerance : + 0.10

Chack

tolerance *NW : + 0.75

Barrel no. : 8

BASIC SETTING

Rated speed rpm : 1030

Rack travel in mm : 15.30 Tolerance mm : + 0.05

Del. quantity cm3/1000 strokes	: 272.0
Tolerance cm3/1000 strokes	: + 1.0
Check tolerance cm3/1000s.	: + 4.0
Spreed	
Tolerance cm3/1000 strokes	: 5.0
Check tolerance cm3/1000S.	: 9.0
Rated speed rpm	: 350
Rack travel in man	s: 5.00 : + 0.10
Del. quantity cm3/1000 strokes	: 19.0
Tolerance cm3/1000 strokes	: + 3.0
Check tolerance cm3/1090s. Spreed	: + 6.0
Tolerance cm3/1000 strokes	: 8.0
Check tolerance cm3/1000s.	: 12.0
(B) SETTING OF IN WITH GOVERNOR	NECTION PUMP
GUIDE SLEEVE POSI	TION
control lever position degree Rated speed rpm	: - 3 : 800
Rack travel in man Tolerance man	: 0.50 : + 0.20
governor spring pre-tension click setting x	: 3.75
FULL LOAD DELIVER	Y AT FULL LOAD STOP
	4050

Aneroid pressure hPa Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s. Spreed Tolerance im3/1000 strokes Check tolerance cm3/1000s.	: 1200 : 272.0 : ← 1.0 : ← 4.0 : 5.0 : 9.0
CONTROL LEVER	
control lever position degree tolerance degree	: 96.0 : + 4.0
RATED SPEED rack travel mm Rated speed rpm Tolerance 1/min	: 14.30 : 1075 : +- 5
rack travel mm Rated speed rpm Tolerance 1/min	: 4.00 : 1150 : +- 5
rack travel man Tolerance man Rated speed rpan	: 0.85 : +- 0.55 : 1400
LOW IDLE	
control lever position degree tolerance degree	: 75.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 100
CRT mm min.	: > 19.50
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 5.00 : +- 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 2.00 : 395 : + 30

Rated speed rpm : 1050

SET IDLE AUXILIARY SPRING

rack travel mm : 2.00

TORQUE CONTROL

Rated speed rpm : 1030 rack travel mm : 15.30 Tolerance mm : + 0.05

Rated speed rpm : 800 rack travel mma : 15.30 Tolerance mma : + 0.10

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500 Pressure hPa : -

MEASUREMENT

Pressure hPa : 180 rack travel mm : 0.40 Tolerance mm : + 0.05

Pressure hPa : 800 rack travel mm : 5.00 Tolerance mm : + 0.15

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

nPa : 1200 Rated speed rpm : 800 Del. quantity

cm3/1000 strokes : 274.0

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : + 6.0 Spreed

Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Aneroid pressure

hPa : Rated speed rpm : 500

Del. quantity

cm3/1000 strokes : 140.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : \leftarrow 4.0

Spreed

Tolerance

cm3/1000 strokes : 8.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

Del. quantity

cm3/1000 strokes : 270.0

Tolerance

cm3/1000 strokes : + 15.0

Check tolerance

cm3/1000s. : + 19.0

LOW IDLE

Rated speed rpm : 350

Rack travel in mm: 5.00
Tolerance mm: : + 0.10
Del. quantity
cm3/1000 strokes: 19.0

Tolerance cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : + 6.0

Spreed Tolerance

cm3/1000 strokes : 8.0

Check tolerance

cm3/1000s. : 12.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition

: 28,11,97

Test oil

: ISO 4113

Combination No. : 0 402 736 849

Injection pump

Pump designation : PES6P120A720/3LS7251. EP type number : 0 412 726 860

Governor

Governer design. : RQV300...1000PA962

: -12K

Governer no.

: 0 421 815 407

Cust. part No. : 3-7373

Customer-spec. information : MAN

Customer Motor

: D2866LF09

Power KW

: 398.0

TEST BENCH REQUIREMENTS

Inlet line

: 4.1

Test oil inlet

temp. °C

Tolerance *C

: + 2.0

Overflow valve : 1 417 413 025

Inlet press. bar :

1.5

Tolerance bar : + 0.1

Test nozzle holde

assembly

: 1 688 901 105

Opening pressure

: 208.5

Tolerance bar

Test lines : 1 680 750 089

Outside diameter: 8.0

x inside diameter :

3.0

x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

4.85 Prestroke mm Tolerance mm : +- 0.05

Check

tolerance mm : +- 0.10

Rack travel in mm : 15.50

Tolerance mm

: +- 0.50

Firing order

: 6-2-4-1-5-

: 3

Phasing : 0-60-120-180-240

: -300

Tolerance

: + 0.50

Check

tolerance *NW

: **←** 0.75

Start of delivery mark

Tolerance

: + 0.10

Check

tolerance *NW

: +- 0.75

Barrel no.

: 6

BASIC SETTING

Rated speed rpm : 900	guide sleeve travel mm : 6.96 Tolerance mm : + 0.25
Rack travel in mm : 13.95 Tolerance mm : + 0.05	Rated speed rpm : 305 guide sleeve travel mm : 1.88
Del. quantity cm3/1000 strokes : 294.0	Tolerance mm : + 0.25
Tolerance cm3/1000 strokes : + 1.0	Rated speed rpm : 355 guide sleeve travel mm : 2.53
Check tolerance cm3/1000s. : + 4.0	Tolerance mm : + 0.25 Rated speed rpm : 470
Spreed	guide sleeve travel mm : 3.67 Tolerance mm : + 0.25
Tolerance cm3/1000 strokes : 10.0	Rated speed rpm : 1260 guide sleeve
Check tolerance cm3/1000s. : 14.0	travel mm : 13.50 Tolerance mm : + 0.50
Rated speed rpm : 300	GUIDE SLEEVE POSITION
Rack travel in mm: 5.20 Tolerance mm: ÷ 0.10 Del. quantity cm3/1000 strokes: 32.0 Tolerance cm3/1000 strokes: ÷ 3.0 Check tolerance cm3/1000s. : ← 6.0 Spreed	control lever position degree : - 1 Rated speed rpm : 1120 Rack travel in mm : 12.50 Tolerance mm : + 2.00 FULL LOAD DELIVERY AT FULL LOAD STOP
Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0	Rated speed rpm : 900 Aneroid pressure hPe : 1300 Del. quantity
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	cm3/1000 strokes : 294.0 Tolerance cm3/1000 strokes : +- 1.0 Check tolerance
GUIDE SLEEVE TRAVEL	cm3/1000s. : ← 4.0 Spreed
Rated speed rpm : 1061 guide sleeve travel mm : 10.46 Tolerance mm : + 0.25	Tolerance cm3/1000 strokes : 10.0 Check tolerance cm3/1000s. : 14.0
Rated speed rpm : 300 guide sleeve travel mm : 1.88 Tolerance mm : + 0.25	CONTROL LEVER control lever position degree : 300.0
Rated speed rpm : 764 +	tolerance degree : +- 4.0

NO6

RATED SPEED rack travel com Rated speed rpm Tolerance 1/min	: 1045	ANEROID/ALTITUDE COMPENSATOR TEST	
rack travel mm Rated speed rpm	: 4.00 : 1140	SETTING	
Tolerance 1/min	: 0.50	Rated speed rpm Pressure hPa rack travel mm	: 1300 : 13.95
Tolerance mm Rated speed rpm	: ← 0.50 : 1250	Tolerance mm	: + 0.05
		+ Rated speed rpm + Pressure hPa - rack travel mm	: 900 : - : 9.10
LOW IDLE		Tolerance mm	: +- 0.10
		# MEASUREMENT	
control lever position degree		Rated speed rpm	: 900
tolerance degree	: +- 4.0	+ Pressure hPa + rack travel mm	: 720 : 11.90
Setting point w/ou	ut bumper spring	Tolerance mm	· + 0.20
Rated speed rpm	: 200	Pressure hPa	: 220
CRT mma min.	: > 6.70	rack travel mm Tolerance mm	: 9.45 : + 0.05
Testing:		-	
Rated speed rpm	: 300	+ Start interlock	
rack travel mm Tolerance mm	: 5.20 : ← 0.10	Rated speed rpm Rated speed rpm:	
Rated speed rpm	: 330	Check	
••••		+ speed 1/min - + Check	: > 80
TORQUE CONTROL		speed 1/min	: < 260
Rated speed rpm rack travel man			
Tolerance mm	: + 0.05	FUEL DELIVERY CHA	ARACTERISTICS
Rated speed rpm rack travel mam	: 1000 : 13.50	Aneroid pressure	
Tolerance man	: +- 0.10	+ hPa	: 1300
Pated chard non	: 750	Rated speed rpm	: 1000
Rated speed rpm rack travel mm		+ Del. quantity + cm3/1000 strokes	: 269.0
Tolerance mm	: + 0.10	+ Tolerance	
Rated speed rpm	: 750	+ cm3/1000 strokes + Check tolerance	: +- 3.0
rack travel mm Tolerance mm	: 6.50 : + 0.10	cm3/1000s.	: +- 6.0
		Aneroid pressure	
		+ hPa + Rated speed rpm	: 1300 : 750
		rack travel mm	

Talaman,	0.40
Tolerance mm Del. quantity	: ← 0.10
cm3/1000 strokes	: 287.0
Tolerance cm3/1000 strokes	: ← 3.0
Check tolerance	
cm3/1000s.	: ← 6.0
Aneroid pressure	• -
Rated speed rpm	: 750
Del. quantity cm3/1000 strokes	: 107.0
Tolerance	: 197.0
cm3/1000 strokes	: +- 5.0
Check tolerance cm3/1000s.	: +- 8.0
Spreed	
Tolerance cm3/1000 strokes	: 10.0
Check tolerance	
cm3/1000s.	: 14.0
Aneroid pressure	• –
nra Rated speed rpm	500
Del. quantity	4/0.0
cm3/1000 strokes Tolerance	: 169.0
cm3/1000 strokes	: ← 1.0
Check tolerance cm3/1000s.	: +- 4.0
CIRD/ 10000.	• • •••
STARTING FUEL DEL	IVERY
Del guardity	
Del. quantity cm3/1000 strokes	: 210.0
Tolerance	
cm3/1000 strokes Check tolerance	: ← 15.0
cm3/1000s.	: + 19.0
LOW IDLE	
Rated speed rpm	: 300

Check tolerance cm3/1000s. : + 6.0 Spreed Tolerance cm3/1000 strokes : 8.0 Check tolerance cm3/1000s. : 12.0

End of test specification sheet

Rack travel in mm :

Del. quantity cm3/1000 strokes :

cm3/1000 strokes : + 3.0

Tolerance mm

Tolerance

5.20

0.10

32.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 01.12.97 Test oil : ISO 4113

Combination No. : 0 402 736 915

Injection pump

Pump designation: PES6P120A120RS7413

EP type number : 0 412 726 962

Governor

Governer design. : RQV350...1300PA1364K

Governer no. : 0 421 815 558

Cust. part No. : 3283601

Customer-spec. information Customer : CUMMINS Motor : CBTAN Power KW : 142.0

TEST BENCH REQUIREMENTS

Inlet line : 3.2

Test oil inlet

temp. °C temp. °C : 40 Tolerance °C : ∻− 2.0

Overflow valve : 2 417 413 093

Inlet press. bar : 2.0 Tolerance bar : + 0.1 Inlet press. bar :

Overflow quantity

min. L/h : 260 Tolerance l/h : + 20.0

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

bar : 208.5 Tolerance bar : + 1.5

Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.75
Tolerance mm : + 0.05 Check

tolerance mm : - 0.10

Rack travel in mm: 12.50 Tolerance mm : \leftarrow 0.50

Firing order : 1-5-3-6-2-

Phasing : 0-60-120-180-240

: -300 : → 0.50

Check

Tolerance

tolerance *NW : +- 0.75

Start of delivery blocking

*NW after s.o.d. : 5.00 Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 1300

	1
Rack travel in mm: 12.20 Tolerance mm: + 0.05	Rated speed rpm : 1620 guide sleeve travel mm : 13.50
Del. quantity cm3/1000 strokes : 125.0	Tolerance mm : + 0.50
Tolerance cm3/1000 strokes : + 1.0	GUIDE SLEEVE POSITION
Check tolerance cm3/1000s. : + 4.0	control lever position degree : - 1 Rated speed rpm : 1460
Spreed	
Tolerance cm3/1000 strokes : 5.0	Rack travel in mm : 11.10 Tolerance mm : + 2.70
Check tolerance cm3/1000s. 9.0	FULL LOAD DELIVERY AT FULL LOAD STOP
	Rated speed rpm : 1300 Aneroid pressure hPa : 1500
Rated speed rom : 350	+ hPa : 1500 - Del. quantity
	- cm3/1000 strokes : 125.0
Rack travel in mm : 6.80	+ Tolerance
Tolerance mm : +- 0.10 Del. quantity	+ cm3/1000 strokes : + 1.0 + Check tolerance
cm3/1000 strokes : 16.5	+ cm3/1000s. : +- 4.0
Tolerance	+ Spreed
cm3/1000 strokes : + 3.0	+ Tolerance
Check tolerance	+ cm3/1000 strokes : 5.0
cm3/1000s. : +- 6.0 Spreed	+ Check tolerance + cm3/1000s. : 9.0
Tolerance	+ cm3/1000S. : 9.0
cm3/1000 strokes : 7.0	+
Check tolerance	
cm3/1000s. : 11.0	+ CONTROL LEVER
	- control lever
(B) SETTING OF INJECTION PUMP	+ position degree : 66.0
WITH GOVERNOR	+ tolerance degree : +- 4.0
	†
GUIDE SLEEVE TRAVEL	+ control lever + position degree : 120.0
GOLDE OCCUPE HIMFE	tolerance degree : +- 4.0
Rated speed rpm : 1398	+
guide steeve	+ RATED SPEED
travel mm : 10.63 Tolerance mm : + 0.15	rack travel mm : 11.20
ioterarice min : +- 0.15	Rated speed rpm : 1380 Tolerance 1/min : +- 5
Rated speed rpm : 350	Total and I / mill
guide sleeve	rack travel mm : 4.00
travel mm : 1.83	Rated speed rpm : 1465
Tolerance mm : + 0.20	+ Tolerance 1/min : + 15 + Check
Rated speed rpm : 910 guide sleeve	speed 1/min : +- 20
travel mm : 6.09	rack travel mm : 0.50
Tolerance mm : + 0.25	+ Tolerance mm : + 0.50

Rated speed rpm :	1550 +	MEASUREMENT	
	‡	Rated speed rpm	: 1300
LOW IDLE	+	Pressure hPa rack travel mm Tolerance mm	
control lever position degree : tolerance degree :	78.0 + 4.0	Pressure hPa rack travel mm Tolerance mm	: 400 : 10.40 : +- 0.05
control lever position degree : tolerance degree :	25.0 + 4.0	Start interlock	
Setting point w/out	bumper spring	Rated speed rpm Rated speed rpm	: > 100 : < 300
Rated speed rpm :	+	Check speed 1/min	: > 80
CRT mm min. : Testing:	> 9.30 +	Check speed 1/min	: < 320
_	750		
Rated speed rpm : rack travel mm : Tolerance mm :		FUEL DELIVERY CHA	RACTERISTICS
Rated speed rom :	350	Aneroid pressure hPa Rated speed rpm Tolerance	: 7500 : 1100
rack travel ma :	1300	cm3/1000 strokes Check tolerance cm3/1000s.	
Rated speed rpm :		Spreed Tolerance cm3/1000 strokes	: 12.0
Rated speed rpm :		Check tolerance cm3/1000s.	: 16.0
rack travel mm : Tolerance mm :	10.90 + 0.15	Aneroid pressure	: 1500
ANEROID/ALTITUDE COMPENSATOR TEST		Rated speed rpm rack travel mm Tolerance mm Del. quantity	
SETTING	‡	cm3/1000 strokes Tolerance	
	1300 1500	cm3/1000 strokes Check tolerance cm3/1000s.	
rack travel mm :	12.20 + 0.05	-	: + 6.0
	1300	Aneroid pressure hPa	: -
Pressure hPa : rack travel mm : Tolerance mm : -	- 9.90 ← 0.20	Rated speed rpm Del. quantity cm3/1000 strokes	
	Ţ	amor room ser ones	. 07.0

Tolerance

cm3/1000 strokes : +- 2.0

Check tolerance

cm3/1000s. : +- 4.0

STARTING FUEL DELIVERY

Set starting CRT at K-cam.

Rated speed rpm : 100 rack travel mm : 10.30

Tolerance are : + 0.50

Del. quantity

cm3/1000 strokes : 65.0

Tolerance

cm3/1000 strokes : + 20.0

Check tolerance

cm3/1000s. : + 24.0

LOW IDLE

Rated speed rpm : 350

Rack travel in mm: 6.80 Tolerance mm: :+ 0.10

Del. quantity

cm3/1000 strokes : 16.5

Tolerance

cm3/1000 strokes : + 3.0

Check tolerance

cm3/1000s. : \leftarrow 6.0

Spreed

Tolerance

cm3/1000 strokes : 7.0

Check tolerance

cm3/1000s. : 11.0

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 01.12.97 : ISO 4113

Combination No.

: 0 402 776 840

Injection pump

Pump designation : PES6P120A720LS7440

EP type number

: 0 412 726 971

Governor

Governer design. : RSV350...750P0A520

: -1

Governer no.

: 0 421 833 262

Cust. part No. : 0270749602

Customer-spec. information : MB-NFZ Customer : OM447 A Motor Power KW : 180.0

TEST BENCH REQUIREMENTS

Inlet line : 4.1

Test oil inlet

vemp. "C 40 Tolerance °C

Overflow valve : 1 417 413 047

Inlet press. bar : 2.0 Tolerance bar : + 0.1

Overflow quantity

: 225 min. L/h Tolerance l/h: + 20.0

Test nozzle holde

: 1 688 901 019 assembly

Opening pressure

: 208.5 : + 1.5 Tolerance bar

Test lines : 1 680 750 075

Outside diameter : 8.0

x inside diameter : 3.0 x length mm : 1000

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

5.25 Prestroke mm Tolerance mm : **←** 0.05

Check

tolerance mm : \leftarrow 0.10

Rack travel in mm: 20.50 Tolerance mm : \leftarrow 0.50

Firing order : 6-2-4-1-5-

: 3

Phasing : 0-60-120-180-240

: -300

Tolerance : +- 0.50

Check

tolerance *NW : +- 0.75

Start of delivery mark

Tolerance : **←** 0.50

Check

tolerance *NW : +- 0.75

Barrel no.

BASIC SETTING

Rated speed rpm : 700

Rack travel in mm : 15.00

N13

Tolerance mm : + 0.05	Rated speed rpm : 700 Aneroid pressure
Del. quantity cm3/1000 strokes : 230.0	hPa : - Del. quantity
Tolerance	cm3/1000 strokes : 230.0 Tolerance
cm3/1000 strokes : + 1.0	cm3/1000 strokes : +- 1.0 Check tolerance
Check tolerance cm3/1000s. : + 4.0	cm3/1000s. : +- 4.0 Spreed Tolerance
Spreed	cm3/1000 strokes : 5.0 Check tolerance
Tolerance cm3/1000 strokes : 5.0	cm3/1000s. : 9.0
Check tolerance cm3/1000s. : 9.0	CONTROL LEVER
	control lever
Rated speed rpm : 350	position degree : 77.0 tolerance degree : + 4.0
Rack travel in mm: 5.30 Tolerance mm: + 0.10	ASSEMBLY GOVERNOR SETTING
Del. quantity	
cm3/1000 strokes : 17.0	Rated speed rpm : 750 rack travel mm : 14.00
cm3/1000 strokes : + 3.0 + Check tolerance	Rated speed rpm : 785
cm3/1000s. : + 6.0	Tolerance 1/min : +- 4
Spreed + Tolerance +	rack travel mm : 4.00
m3/1000 strokes : 8.0	rack travel mm : 0.85
Check tolerance cm3/1000S. : 12.0	Tolerance mm : + 0.55
CIBS/ 18605 12.0	Rated speed rpm : 850
(B) SETTING OF INJECTION FUMP	Rated speed rpm : 751
WITH GOVERNOR	rack travel mm : 14.00
1	Rated speed rpm : 786
GUIDE SLEEVE POSITION	Tolerance 1/min : +- 4 rack travel mm : 4.00
COLDE SEEEAE LOOTLINA	rask travet mm : 4.00
+	rack travel mm : 0.85 Tolerance mm : + 0.55
control lever	Tolerance mm : + 0.55
position degree : -3 Rated speed rpm : 800	Rated speed rpm : 850
Rack travel in mm: 0.50	Rated speed rpm : 752
Tolerance mm : +- 0.20	Rated speed rpm : 752 rack travel mm : 14.00
governor spring	Rated speed rpm : 787 Tolerance 1/min : + 4
pre-tension -	Tolerance 1/min : + 4
click setting x : 0.75	rack travel mm : 4.00
FILL LOAD OF THE STATE OF THE S	rack travel mm : 0.85
FULL LOAD DELIVERY AT FULL LOAD STOP	Tolerance mm : +- 0.55
†	Rated speed rpm : 850

Rated speed rpm rack travel mm	: 753 : 14.00
Rated speed rpm Tolerance 1/min rack travel mma	: +- 4
rack travel mm Tolerance mm Rated speed rpm	: ← 0.55
Rated speed rpm rack travel mm	
Rated speed rpm Tolerance 1/min rack travel mm	
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : + 0.55 : 850
Rated speed rpm rack travel mm	: 755 : 14.00
Rated speed rpm Tolerance 1/min rack travel mm	: 790 : + 4 : 4.00
rack travel mm Tolerance mm Rated speed rpm	: 0.85 : ← 0.55 : 850
FOM IDFE	
control lever position degree tolerance degree	: 62.0 : ← 4.0
Testing:	
Rated speed rpm rack travel mm Tolerance mm	: 350 : 5.30 : ← 0.10
rack travel mm Rated speed rpm Tolerance 1/min	: 380
SET IDLE AUXILIAR	Y SPRING
	400

TORQUE CONTROL Rated speed rpm rack travel mm Tolerance mm	: : : +-	700 15.00 0.05	
STARTING FUEL DEL	IVERY		
Rated speed rpm rack travel mm	:	100 16.00	
Del. quantity cm3/1000 strokes	:	210.0	
Tolerance cm3/1000 strokes Check tolerance	: +-	15.0	
cm3/1000s.	: +-	19.0	
LOW IDLE			
Rated speed rpm	:	350	
Rack travel in mm Tolerance mm Del. quantity	: +-	5.30 0.10	
cm3/1000 strokes Tolerance	:	17.0	
cm3/1000 strokes Check tolerance	; +-	3.0	
cm3/1000S. Spr∈ed	: +-	6.0	
	:	8.0	
Check tolerance cm3/1000s.	•	12.0	

End of test specification sheet

Rated speed rpm : 100 rack travel mm : 2.00

Note remarks

Refer to Service Info for test and adjustment instructions.
See microcard(s) W400/...

Edition : 02.12.97 Test oil : ISO 4113

Combination No. : 0 402 946 030

Injection pump

Pump designation : PES6P120A720RS8049

EP type number : 0 412 926 031

Governor

Governer design. : RQ750PA1299 Governer no. : 0 421 801 810

Cust. part No. : 1397781

Customer—spec. information
Customer : SCANIA
Motor : DSC1158A

TEST BENCH REQUIREMENTS

Inlet line : EHAB

Test oil inlet

temp. °C : 40
Tolerance °C : + 2.0

Overflow valve : 2 417 413 082

Inlet press. bar : 2.5
Tolerance bar : + 0.1

Overflow quantity

min. l/h : 90 Tolerance l/h : + 20.0

Test nozzle holde

assembly : 1 688 901 104

Opening pressure

bar : 251.5 Tolerance bar : + 1.5 Test lines : 1 680 750 008

Outside diameter : 6.0

x inside diameter: 2.0 x length mm : 600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values ____

BEGINNING OF DELIVERY

Test pressure bar : 26.0 Tolerance bar : + 1.0

Prestroke mm : 3.65
Tolerance mm : + 0.05
Check

tolerance mm : + 0.10

Rack travel in mm: 10.50
Tolerance mm: + 1.50

Firing order : 1-5- 3- 6- 2-

: 4

Phasing : 0-60-120-180-240

: -300

Tolerance : + 0.30

Check

tolerance *NW : +- 0.75

Start of delivery blocking

Tolerance : +- 0.10

Check

tolerance *NW : +- 0.75

Barrel no. : 1

BASIC SETTING

Rated speed rpm : 700	Check tolerance cm3/1000s. : 12.0
Rack travel in mm: 13.15 Tolerance mm: + 0.05	
Del. quantity	CONTROL LEVER
cm3/1000 strokes : 363.0	control lever position degree : 22.0
Tolerance cm3/1000 strokes : + 1.0	tolerance degree : + 4.0 control lever
Check tolerance cm3/1000s. : + 11.0	position degree : 83.0 tolerance degree : +- 4.0
Spreed	ACCEMENT V COMEDNIOD CETTING
Tolerance	ASSEMBLY GOVERNOR SETTING
cm3/1000 strokes : 8.0	Rated speed rpm : 750 rack travel mm : 12.10
Check tolerance cm3/1000s. : 12.0	Rated speed rpm : 778
	Tolerance $1/min : + 4$ rack travel mm : 4.00
Rack travel in mm: 3.00	rack travel mm : 0.50 Tolerance mm : + 0.50
Tolerance mm : - 0.20 Del. quantity	Rated speed rpm : 350
cm3/1000 strokes : 30.0	Rated speed rpm : 751
cm3/1000 strokes : + 4.0 Check tolerance	Rated speed rpm : 751 rack travel mm : 12.10
cm3/1000s. : +- 6.0	Rated speed rpm : 779 Tolerance 1/min : + 4
Tolerance cm3/1000 strokes : 5.0	rack travel mm : 4.00
Check tolerance cm3/1000s. 9.0	rack travel mm : 0.50 Tolerance mm : ⊹ 0.50
	Rated speed rpm : 850
(B) SETTING OF INJECTION PUMP WITH GOVERNOR	Detect aread are a 752
WITH GOVERNOR	Rated speed rpm : 752 rack travel mm : 12.10
FULL LOAD DELIVERY AT FULL LOAD STOP	Rated speed rpm : 780 Tolerance 1/min : +- 4
Rated speed rpm : 700	rack travel mm : 4.00
Aneroid pressure	rack travel mm : 0.50
hPa : 1500 + Del. quantity +	Tolerance mm : +- 0.50 Rated speed rpm : 850
cm3/1000 strokes : 363.0	
cm3/1000 strokes : + 1.0 +	Rated speed rpm : 753
Check tolerance : + 11.0 +	rack travel mm : 12.10
Spreed + Tolerance +	Rated speed rpm : 781 Tolerance 1/min : + 4
cm3/1000 strokes : 8.0	rack travel mm : 4.00

rack travel mm	:	0.50
Tolerance mm	: +	0.50
Rated speed rpm	:	850

Rated speed rpm : 754 rack travel mm : 12.10

Rated speed rpm : 782
Tolerance 1/min : + 4
rack travel mm : 4.00

rack travel mma : 0.50
Tolerance mma : + 0.50
Rated speed rpm : 850

Rated speed rpm : 755 rack travel mm : 12.10

Rated speed rpm : 783
Tolerance 1/min : + 4
rack travel mm : 4.00

rack travel mm : 0.50
Tolerance mm : + 0.50
Rated speed rpm : 850

TORQUE CONTROL
Rated speed rpm : 700
rack travel mm : 13.15
Tolerance mm : + 0.05

ANEROID/ALTITUDE COMPENSATOR TEST

SETTING

Rated speed rpm : 500
Pressure hPa : 1500
rack travel mm : 13.15
Tolerance mm : + 0.05

Rated speed rpm : 500
Pressure hPa : rack travel mm : 7.80
Tolerance mm : +- 0.20

MEASUREMENT

Rated speed rpm : 500

Pressure hPa : 230 rack travel mm : 8.45 Tolerance mm : + 0.25

Fressure hPa : 580 rack travel mm : 10.45 Tolerance mm : + 0.05

FUEL DELIVERY CHARACTERISTICS

Aneroid pressure

hPa : Rated speed rpm : 500
Del. quantity

cm3/1000 strokes : 230.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s. : \leftarrow 7.0

STARTING FUEL DELIVERY

Rated speed rpm : 100

End of test specification sheet

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Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition Test oil

: 01.12.97 : ISO 4113

Combination No. : 0 403 244 056

Injection pump

Pump designation : PES4MW100/720RS1525.

EP type number : 0 413 204 022

Governor

Governer design. : RQ300/1300MW160

Governer no. : 0 420 082 077

Cust. part No. : 0270749502

Customer-spec. information Customer : MB-NFZ

Motor

: 0M364LA

Power KW

: 103.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C

Tolerance *C

: +- 2.0

Overflow valve : 1 419 992 198

Inlet press. bar : 1.5

Test nozzle holde

assembly

: 1 688 901 101

Opening pressure

bar

: 208.5

Tolerance bar : + 1.5

Test lines : 1 680 750 089

Outside diameter : 8.0

x inside diameter: 3.0

x length mm :

600

REMARKS

(A) INJECTION PUMP SETTING VALUES

Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar:

Tolerance bar : + 1.0

Prestroke mm : 4.55 Tolerance mm : + 0.05

Check

tolerance m_0 : +- 0.10

Rack travel in mm: 20.00

Tolerance mm : + 1.00

Firing order : 1-3-4-2

Phasing : 0-90-180-270

Tolerance : **←** 0.50

Check

tolerance *NW : + 0.75

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 13.30

Tolerance mm : \leftarrow 0.05

Del. quantity

cm3/1000 strokes : 119.0

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance

cm3/1000s.

: **←** 3.0

Spreed

Tolerance cm3/1000 strokes : 3.5	t
Check tolerance	GUIDE SLEEVE POSITION
cm3/1000s. : 6.0	Ţ
	control lever position degree : VL
Rated speed rpm : 300	+
	control lever position degree : 109
Rack travel in mm: 3.90 Tolerance mm: +- 0.10	Rated speed rpm : 800
Del. quantity	Rack travel in mm: 20.00
cm3/1000 strokes : 12.0 Tolerance	Tolerance mm : + 0.80
$cm3/1000$ strokes : \leftarrow 2.0	
Check tolerance cm3/1000s. : ← 4.5	FULL LOAD DELIVERY AT FULL LOAD STOP
Spreed	Rated speed rpm : 1300
Tolerance cm3/1000 strokes : 3.5	Aneroid pressure
Check tolerance	+ hPa : 1200 + Del. quantity
cm3/1000s. : 5.5	+ cm3/1000 strokes : 119.0
	+ Tolerance + cm3/1000 strokes : + 1.0
(B) SETTING OF INJECTION PUMP	Check tolerance
WITH GOVERNOR	+ cm3/1000s. : + 3.0
	Spreed Tolerance
GUIDE SLEEVE TRAVEL	- cm3/1000 strokes : 3.5
Rated speed rpm : 1353	+ Check tolerance + cm3/1000s. : 6.0
Rated speed rpm : 1353 guide sleeve	+ cm3/1000s. : 6.0
travel mm : 6.52	+
Tolerance mm : +- 0.15	CONTROL LEVER
Rated speed rpm : 300	CONTROL LEVER
guide sleeve	t control lever
travel mm : 1.12 Tolerance mm : + 0.20	position degree : 95.0 tolerance degree : +- 4.0
	+
Rated speed rpm : 1300 guide sleeve	RATED SPEED
travelimm : 6.00	+ rack travel mm : 12.30 + Rated speed rpm : 1345
Tolerance mm : + 0.10	Tolerance 1/min : + 5
Rated speed rpm : 458	rack travel mm : 4.00
guide sleeve	Rated speed rpm : 1465
travel mm : 2.45 Tolerance mm : + 0.10	Tolerance 1/min : + 15
	rack travel mm : 0.50
Rated speed rpm : 750	+ Tolerance mm : +- 0.50
guide sleeve travel mm : 6.00	Rated speed rpm : 1575
Tolerance mm : + 0.10	+
Rated speed rpm : 1570	Ţ
guide sleeve	+ LOW IDLE
travel mm : 11.50 Tolerance mm : +- 0.50	1
TO LOT OF THE MIN . T U.JU	T

N20

control lever position degree tolerance degree	: 69.0 : + 4.0
Setting point w/o	ut bumper spring
Rated speed rpm	: 200
CRT mm main.	: > 4.30
Testing:	
Rated speed rem rack travel mm Tolerance mm	: 300 : 3.90 : + 0.10
TORQUE CONTROL Rated speed rpm rack travel mm Tolershoe mm	: 1300 : 13.30 : +- 0.05
Rated speed rpm rack travel mm Tolerance mm	
ANEROID/ALTITUDE COMPENSATOR TEST	
SETTING	
~	
Rated speed rpm Pressure hPa rack travel mm Tolerance mm	: 500 : 1200 : 13.30 : +- 0.05
rack travel mm	: 13.30 : +- 0.05
rack travel mm Tolerance mm Rated speed rpm Pressure hPa	: 13.30 : + 0.05 : 500 : -
rack travel mm Tolerance mm Rated speed rpm Pressure hPa Tolerance mm	: 13.30 : + 0.05 : 500 : - : + 0.10
rack travel mm Tolerance mm Rated speed rpm Pressure hPa Tolerance mm MEASUREMENT	: 13.30 : + 0.05 : 500 : - : + 0.10
rack travel mm Tolerance mm Rated speed rpm Pressure hPa Tolerance mm MEASUREMENT Rated speed rpm Pressure hPa rack travel mm	: 13.30 : + 0.05 : 500 : - : + 0.10 : 500 : 400 : 2.00
rack travel mm Tolerance mm Rated speed rpm Pressure hPa Tolerance mm MEASUREMENT Rated speed rpm Pressure hPa rack travel mm Tolerance mm Pressure hPa rack travel mm	: 13.30 : + 0.05 : 500 : - 0.10 : 500 : 400 : 2.00 : + 0.10 : 200 : 0.50

Check speed 1/min Check speed 1/min	: > 80 : < 220
FUEL DELIVERY CHA	RACTERISTICS
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000s. Spreed Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1200 : 750 : 116.0 : + 1.5 : + 4.0 : 6.0 : 9.0
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: - : 500 : 73.0 : + 1.0 : + 3.0
REDUCED QUANTITY	
Aneroid pressure hPa Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000s.	: 1200 : 1300 : 105.0 : +- 1.5 : +- 3.0
STARTING FUEL DEL	IVERY
Rated speed rpm Del. quantity cm3/1000 strokes Tolerance cm3/1000 strokes Check tolerance cm3/1000S.	: 100 : 150.0 : + 5.0 : + 8.0

LOW IDLE

Rated speed rpm	:		300
Rack travel in man Tolerance man Del. quantity	:	+	3.90 0.10
cm3/1000 strokes Tolerance	:		12.0
cm3/1000 strokes Check tolerance	:	+-	2.0
cm3/1000s.	:	+-	4.5
Tolerance cm3/1000 strokes Check tolerance	:		3.5
cm3/1000s.	:		5.5

Note remarks

Refer to Service Info for test and adjustment instructions. See microcard(s) W400/...

Edition : 01.12.97 Test oil : ISO 4113

Combination No. : 0 403 446 158

Injection pump

Pump designation : PES6MW100/720RS1131.

EP type number : 0 413 406 123

Governor

Governer design. : RQV300...1300MW50-1

60verner no. : 0 420 083 089

Cust. part No. :

Customer-spec. information Customer : MB-NFZ Motor : OM 366 LA Power KW : 150.0

TEST BENCH REQUIREMENTS

Inlet line : 3.1

Test oil inlet

temp. °C Tolerance °C : +- 2.0

Overflow valve : 1 417 413 047

Inlet press. bar : 1.5

Test nozzle holde

: 1 688 901 101 assembly

Opening pressure

: 208.5 : + 1.5 har Tolerance bar

Test lines : 1 680 750 015

Outside diameter : 6.0

x inside diameter: 3.0 x length mm :

REMARKS

(A) INJECTION PUMP SETTING VALUES Set equal delivery quant.

per values _____

BEGINNING OF DELIVERY

Test pressure bar : Tolerance bar : +- 1.0

Prestroke mm : 3.75 Tolerance mm : + 0.05 Check

tolerance mm : + 0.10

Rack travel in mm: 10.50 Tolerance mm : + 1.50

Firing order : 1-5-3-6-2-: 4

Phasing : 0-60-120-180-240

: -300

BASIC SETTING

Rated speed rpm : 1300

Rack travel in mm: 12.25 Tolerance ma: \leftarrow 0.05

Del. quantity cm3/1000 strokes : 97.5

Tolerance

cm3/1000 strokes : + 1.0

Check tolerance cm3/1000s. : +- 3.0

Spreed

Tolerance

cm3/1000 strokes : 3.5

Check tolerance cm3/1000s. : 6.0	guide sleeve travel mm : 11.50 Tolerance mm : +- 0.50
Rated speed rpm : 300	GUIDE SLEEVE POSITION
Rack travel in mm: 6.90	
Tolerance mm : + 0.10	control lever
Del. quantity cm3/1000 strokes : 11.0	position degree : -1
Tolerance	Rated speed rpm : 1340
cm3/1000 strokes : + 2.0	Rack travel in mm: 16.50
Check tolerance	Tolerance mm : + 1.30
cm3/1000cs. : + 4.5	
Spræd Tolerance	FIRE LOAD DELTHEDY AT SHILL LOAD STOP
cm3/1000 strokes : 3.5	FULL LOAD DELIVERY AT FULL LOAD STOP
Check tolerance	Rated speed rpm : 1300
cm3/1000s. : 5.5	Aneroid pressure
†	hPa : 700
(B) SETTING OF INJECTION PUMP	Del. quantity
WITH GOVERNOR	cm3/1000 strokes : 97.5 Tolerance
-	cm3/1000 strokes : + 1.0
+	Check tolerance
GUIDE SLEEVE TRAVEL	cm3/1000s. : +- 3.0
Rated speed rpm : 1354	Spreed Tolerance
guide steeve	cm3/1000 strokes : 3.5
travel mm : 8.68	Check tolerance
Tolerance ram : + 0.25	cm3/1000s. : 6.0
Rated speed rpm : 300	•
Rated speed rpm : 300 + guide sleeve +	
travel mm : 1.40	CONTROL LEVER
Tolerance mm : + 0.25	
t	control lever
Rated speed rpm : 881	position degree : 114.0
guide sleeve + travel mm : 5.02 +	tolerance degree : +- 4.0
Tolerance man : + 0.25	RATED SPEED
}	rack travel mm : 11.20
Rated speed rpm : 363	Rated speed rpm : 1345
guide sleeve + travel mm : 2.05 +	Tolerance 1/min : + 5
Tolerance mm : + 0.25	rack travel mm : 4.00
Total difference in the second	Rated speed rpm : 1455
Rated speed rpm : 413	Tolerance 1/min : + 15
guide sleeve	
travel mm : 2.44 + Tolerance mm : + 0.25 +	rack travel mm : 0.50
roterance man : + 0.2	Tolerance mm : +- 0.50 Rated speed rpm : 1550
Rated speed rpm : 500	Hacea apoca i piii . 1990
guide sleeve	
travel mm : 2.99	
Tolerance mm : + 0.25 *	LOW IDLE
Rated speed rpm : 1600	COM INCE

control lever position degree 80.0 tolerance degree : +-4.0 Setting point w/out bumper spring 100 Rated speed rpm : 7.60 CRT mm min. : > Testing: Ratied speed rpm 300 6.90 rack travel mo Tolerance ma : + - 0.10TORQUE CONTROL Rated speed rpm 1300 12.25 rack travel ma : **←** 0.05 Tolerance mo 575 Rated speed rpm 12.25 rack travel mm Tolerance mm : + 0.10ANEROID/ALTITUDE COMPENSATOR TEST SETT'ING 500 Rated speed rpm Pressure hPa 700 12.25 rack travel mm : + 0.10Tolerance mm 500 Rated speed rom Pressure hPa : +- 0.05 Tolerance mm MEASUREMENT 500 Rated speed rpm 225 Pressure hPa rack travel mm 1.40 s: + 0.10 Tolerance mm Pressure hPa 170 0.40 rack travel mm : + 0.10Tolerance mm

speed 1/min : > 80 Check speed 1/min 250 : < FUEL DELIVERY CHARACTERISTICS Aneroid pressure 700 Rated speed rpm 575 Del. quantity cm3/1000 strokes : 84.5 Tolerance cm3/1000 strokes : +-1.5 Check tolerance cm3/1000s. 4.0 Spreed Tolerance 5.0 cm3/1000 strokes : Check tolerance cm3/1000s. 7.0 : Aneroid pressure Rated speed rpm 500 Del. quantity cm3/1000 strokes : 52.0 Tolerance cm3/1000 strokes : +-1.0 Check tolerance cm3/1000s. 3.0 STARTING FUEL DELIVERY Rated speed rpm 100 Del. quantity cm3/1000 strokes : 88.0 Tolerance cm3/1000 strokes : +-5.0 Check tolerance cm3/1000s. : +-8.0 LOW IDLE Rated speed rpm : 300 Rack travel in mm: 6.90 Tolerance mm : + 0.10Del. quantity cm3/1000 strokes : 11.0

Check

Start interlock

Rated speed rom

Rated speed rpm

: >

: <

100

220

Tolerance		
cm3/1000 strokes	: +-	2.0
Check tolerance		
cm3/1000s.	: +-	4.5
Spreed		
Tolerance		
cm3/1000 strokes	:	3.5
Check tolerance		
cm3/1000s.	:	5.5